



SEQUENCE LISTING

<110> Fishman, Mark C. and Xu, Xiaolei

<120> Methods for Diagnosing and Treating
Heart Disease

<130> 00786/381003

<140> US 10/656,873

<141> 2003-09-05

<150> US 09/759,508

<151> 2001-01-12

<150> US 60/175,787

<151> 2000-01-12

<160> 11

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 81940

<212> DNA

<213> Homo sapiens

<400> 1

```
attagaggct caccgattca tgtcggagat ggtcagaaaa accaactctc cataggacgt 60
cgtttcagaa gcaaccttgg gcttagtccc acccttttta ggcactcttg agaaatcaga 120
gtgcctagaa agatgacaac tcaagcaccg acgtttacgc agccgttaca aagcgttggt 180
gtactggagg gtagtaccgc aacctttgag gctcacatta gtggttttcc agttcctgag 240
gtgagctggg ttagggatgg ccaggtgatt tccacttcca ctctgcccgg cgtgcagatc 300
tccttttagcg atggccgcgc taaactgacg atccccgccg tgactaaagc caacagtggg 360
cgatattccc tgaaagccac caatggatct ggacaagcga ctagtactgc tgagcttctc 420
gtgaaagctg agacagcacc acccaacttc gttcaacgac tgcagagcat gaccgtgaga 480
caaggaagcc aagtgagact ccaagtgaga gtgactggaa tccctacacc tgtggtgaa 540
ttctaccggg atggagccga aatccagagc tcccttgatt tccaaatttc acaagaaggc 600
gacctctaca gcttactgat tgcagaagca taccctgagg actcagggac ctattcagta 660
aatgccacca atagcgttgg aagagctact tgcactgctg aattactggt tcaagtgaa 720
gaagaagtac ctgctaataa gacaaagaca attgtttcga ctgctcagat ctcagaatca 780
agacaaaccc gaattgaaaa gaagattgaa gccactttg atgccagatc aattgcaaca 840
gttgagatgg tcatagatgg tgccgctggg caacagctgc cacataaaac acctcccagg 900
attcctccga agccaaagtc aagatcccca acaccaccgt ctattgctgc caaagcacag 960
ctggctcggc agcagtcccc atcgcccata agacactccc cttccccggg cagacacgtg 1020
cgggcaccga ccccatctcc ggtcagggtc gtgtctccag cagcaagaat ctccacatcc 1080
cccatcaggt ctgttaggtc tccattgctc atgcgtaaga ctcaggcatc caccgtggcc 1140
acaggtcctg aagtgcctcc cccttggaag caagagggt acgtggcctc ctcatctgag 1200
gctgagatga gagagacaac gctgacaacc tctactcaga tcaggacaga agagagatgg 1260
gaagggagat acggtgtcca ggagcaagt accatcagtg gtgctgcggg tgctgccgcc 1320
agtgtgtcgg ccagtgtcag ctacgcagca gaggctgttg ccactggtgc taaagaggtg 1380
aaacaagatg ctgacaaaag tgcagctgtt gcgactgttg ttgctgccgt tgatatggcc 1440
agagtgagag aaccagtgat cagcgctgta gagcagactg ctcagaggac aaccacgact 1500
gctgtgcaca tccaacctgc tcaagaacag gtaagaaagg aagcggagaa gactgctgta 1560
actaaggtag tagtgccgc cgataaagcc aaggaacaag aattaaaatc aagaaccaa 1620
gaaataatta ccacaaagca agagcagatg cagctaactc atgagcagat aagaaaagaa 1680
actgaaaaaa catttgtacc aaaggtagta atttccgcag ctaaagccaa agaacaagaa 1740
actagaattt ctgaagaaat tactaagaaa cagaaacaag taactcaaga agcaataatg 1800
```

aaggaaacta	ggaaaacagt	tgtacctaaa	gtcatagttg	ccacacccaa	agtcaaagaa	1860
caagatttag	tatcaagagg	tagagaaggc	attactacca	aaagagaaca	agtgc aaata	1920
actcaggaga	agatgagaaa	ggaagccgag	aaaactgcct	tgtctacaat	agcagttgct	1980
actgctaaag	ccaaagaaca	agaaacaata	ctgagaacta	gagaaactat	ggctactaga	2040
caagaacaaa	tccaagttac	ccatggaaag	gtggacgttg	gaaaaaaggc	tgaagctgta	2100
gcaacagttg	ttgctgcagt	agaccaggcc	cgagtcagag	agcccagaga	gcctgggcat	2160
cttgaagaat	cctatgctca	gcagaccact	ttggagtacg	gatataagga	acgcattttcc	2220
gccgcaaagg	tagctgagcc	tccccaacgt	ccagcctcag	aaccccacgt	tgtccctaaa	2280
gcagtcaagc	ctagagtaat	ccaggctcct	tctgagactc	atatcaaaac	tactgatcaa	2340
aagggaatgc	acatatcatc	acagatcaag	aaaactacag	atctaacaac	ggaaagatta	2400
gtccatgtgg	ataaacgccc	ccgcacagct	agccctcact	ttactgtttc	aaaaattttct	2460
gttcctaaga	cagaacatgg	atatgaggca	tcaatagccg	gtagtgtctat	tgccacatta	2520
caaaaagagt	tgctagccac	atcttctgct	cagaagatca	ccaaatcggg	gaaggctcct	2580
actgtgaagc	ccagtgaagc	tagagtaagg	gcagagccca	cacccttgcc	acagttcccc	2640
ttcgctgaca	caccagatac	ttacaagagt	gaagctggcg	ttgaggtgaa	aaagggaagta	2700
ggggtgagca	tcactggcac	caccgtccgt	gaagagcgct	ttgaagtact	gcacggacgc	2760
gaagccaagg	taacagaaac	agcaagagta	ccagcacctg	ttgaaattcc	tgttactcca	2820
ccaactttgg	tctcgggctt	aaaaaatgtg	actgtcatag	aaggtgaatc	tgtcaccttg	2880
gagtgccaca	tctctggata	cccatccccg	acagtgacat	ggtacaggga	agactaccaa	2940
atcgaaagtt	ccattgactt	ccagataacc	ttccagagtg	gaattgctcg	tcttatgatt	3000
cgcgaaagcat	ttgcggaaga	cagcgggcca	tttacttgca	gtgctgtaaa	tgaggctgga	3060
accgtcagca	catcctgcta	tctggctgtg	caggtgtcag	aagaatttga	aaaggaaacc	3120
acagccgtga	ctgagaaatt	tactacagaa	gagaaacgct	ttgttgagtc	aagagatgtg	3180
gttatgactg	atactagcct	cacagaggaa	caagcagggc	ctggagaacc	tgccgcgcct	3240
tactttatta	caaaaccagt	ggtccagaaa	ctggtggaag	gtgggagcgt	ggtgtttgga	3300
tgccaagtgg	gcggcaaccc	aaagcccat	gtatactgga	aaaaatctgg	tgttcctcta	3360
accactggat	acagatacaa	agtgaagttac	aacaaacaaa	ccggtgaatg	caagctggtg	3420
atttctatga	cttttgcctga	tgatgctgga	gaatacacta	ttgttgctcg	caataagcat	3480
ggagaaactt	ctgcatctgc	ttccttgctt	gaagaagctg	attatgagtt	actgatgaag	3540
tcccagcaag	aaatgcttta	tcagacacaa	gtgactgcat	ttgttcaaga	acctgaagtt	3600
ggagaaacag	cacctggatt	tgtatactct	gagtatgaaa	aagagtatga	aaaagaacaa	3660
gccttaatta	ggaagaaaaat	ggccaaagat	actgtagtgg	tcagaactta	tgtagaagat	3720
caggaattcc	atatttcttc	ctttgaagag	agacttatta	aagaaattga	atatagaata	3780
ataaagacta	cattagaaga	acttcttgaa	gaagatggag	aagaaaagat	ggcagttgac	3840
atttctgaat	ctgaagctgt	tgaatcagga	tttgatttaa	gaatcaagaa	ttatagaatt	3900
cttgagggga	tgggtgtcac	ttttcattgc	aagatgtctg	gatatccatt	accaaagatt	3960
gcttggtaca	aagatggcaa	gcgcatacaa	catggagaaa	gataccaaat	ggactttcta	4020
caagatggca	gagctagtct	gcgtatacct	gttggtcttc	cagaagatga	aggaatctac	4080
actgcatttg	ccagcaatat	taaaggaaat	gcaatttgct	cagggaaatt	gtatgtggag	4140
cctgctgcac	cacttgagc	tccgacttac	attcccacac	tagagccagt	gagcagaatc	4200
agatctctct	ctccacgttc	agtgagcagg	tctcctatac	gcatgtctcc	tgacaggatg	4260
tcacctgcaa	ggatgtctcc	tgacaggatg	tcccctgcaa	gaatgtcccc	tggacgtag	4320
ctggaggaga	cagatgagtc	acaacttgag	agactatata	aaccagtctt	tgtgttaaaa	4380
cctgtttctt	tcaaatgttt	agaagggcaa	actgccagat	ttgacttaaa	ggtgtgtggt	4440
agacctatgc	cagagacgtt	ctggtttcat	gatggccagc	aaattgtcaa	tgactatacc	4500
cataaagtag	tcattaaaga	agatggtact	caatcactaa	ttattgtccc	tgccacaccc	4560
agtgattctg	gggaatggac	tgtggttgcc	caaaacaggg	caggcagatc	ttcaatttca	4620
gtgattttta	ctgtggaagc	tgtggaacat	caggtaaaac	cgatgtttgt	agaaaaactg	4680
aaaaatgtca	atataaagga	aggttcccga	cttgaaatga	aagtcagagc	tacgggtaac	4740
cccaaccctg	acattgtatg	gttgaaaaac	agtgacatca	ttgtgcctca	taaaatccc	4800
aaaatcagaa	ttgaaggaaac	caaggagaaa	gctgccttta	aaatcgattc	cactgtcagc	4860
caagattctg	cctggtatac	tgcgactgct	attaataaag	ctggcagaga	cactacaaga	4920
tgcaagtaaa	atgttgaaag	tgagtttgca	gagcctgagc	cagagagaaa	gttaatcatc	4980
ccacggggga	catatagagc	aaaggagatt	gcagccccag	aactggagcc	cctccatttg	5040
cgatatggcc	aagagcaatg	ggaagaaggt	gatctctatg	acaaagagaa	acaacagaaa	5100
ccatttttca	agaaaaaact	cacttcctta	agacttaagc	gctttgggcc	tgcccacttt	5160
gaatgcaggc	taacacccat	tagtgaccca	acgatggtgg	tggagtggct	ccatgatgga	5220
aagccacttg	aagcagccaa	caggctccgt	atgatcaatg	aatttggtga	ctgcagcctt	5280
gattatggcg	ttgcatattc	tagagacagt	ggtatcatta	cttgacagagc	cactaacaaa	5340

tatggaacag	atcacacatc	tgctaccctt	attgttaaag	atgagaaaag	tcttgtggaa	5400
gaatcccaat	tgcctgaggg	gaggaaaggc	ttacagagaa	ttgaagaatt	agagagaatg	5460
gctcatgaag	gtgcacttac	aggtgtaaca	acagatcaga	aagaaaagca	aaagccagac	5520
attgtcttgt	accagagacc	agttagagta	cttgaagggg	agactgcaag	gttccgctgc	5580
agggtaacag	gctaccctca	gccccaaagtc	aactgggtacc	tcaatggaca	gctcatccgc	5640
aaaagcaaaa	ggttcagagt	tcgctatgat	ggtatccatt	acctggacat	cgtggactgc	5700
aaatcatatg	acacaggtga	agtgaaggtc	accgcggaaa	atcctgaagg	tgtgatagag	5760
cataaagtga	agcttgagat	tcaacagagg	gaagatttta	ggtctgtcct	taggagagct	5820
cctgaacca	ggcctgagtt	tcacgtacat	gaaccaggaa	agcttcagtt	tgaagtacaa	5880
aaagtggata	gacctgttga	caccactgaa	accaaagaag	ttgtgaagtt	gaaaagggct	5940
gaaagaatta	cccatgaaaa	agtgcctgaa	gagtcggaag	agctgcgcag	taaattcaag	6000
cgcagaacag	aagaggggcta	ttatgaagcc	attaccgctg	tggagctcaa	gtctcgaaag	6060
aaggatgaat	cctatgagga	actcctcagg	aagacaaaag	atgaacttct	ccactggacc	6120
aaagagttaa	ctgaagagga	aaagaaagct	cttgccgaag	aaggcaaaat	cacgattcca	6180
acttttaaac	ctgacaagat	tgaactaagt	cctagtatgg	aggctccaaa	aatcttcgaa	6240
agaatccaga	gccaacacagt	gggccaagga	tctgatgcac	acttccgggt	cagagctgtg	6300
gggaaaccag	accccgaatg	tgaatggtac	aaaaatggtg	tcaaaattga	acggtctgac	6360
cggatctact	ggtactggcc	cgaagacaat	gtttgtgaat	tggtcataag	agatgtgact	6420
gctgaggact	ctgccagcat	catggtaaaa	gccatcaaca	tagctggaga	aacctccagt	6480
cacgcattct	tacttgtcca	agccaagcaa	ttgatcactt	tcacacagga	attacaagat	6540
gttggtgcta	aggaaaaaga	cactatggca	acctttgaat	gtgaaacttc	agaaccattt	6600
gtcaaatgta	aatggtataa	agatggtatg	gaggttcatg	aggagataaa	atacaggatg	6660
cactctgaca	gaaaggttca	cttcctctcc	atactgacca	ttgatacgtc	tgatgctgaa	6720
gattacagct	gtgtacttgt	ggaagatgaa	aatgtcaaaa	cgactgctaa	acttatttgt	6780
gaaggtgcag	ttgttgagtt	tgtgaaagaa	cttcaggaca	tagaagttcc	agaatcatat	6840
tcaggagaat	tagagtgcac	tgtatcccca	gaaaatatag	aaggaaaatg	gtatcataat	6900
gatgtggagc	ttaaatccaa	tggcaaatat	acaattacat	ctcgtcgtgg	acgtcagaac	6960
ctcacggcta	aggatgtaac	caaggaggac	cagggagaat	acagctttgt	catcgacggg	7020
aaaaagacaa	cctgtaaatt	aaagatgaaa	ccccgcccc	ttgctatcct	acaaggactt	7080
agtgacccaa	aagtctgtga	gggtgacatt	gttcagcttg	aagttaaagt	ctccttggaa	7140
agtgtggaag	gcgtctggat	gaaagacggc	caagaagtgc	agcccagtga	cagggttcac	7200
attgtgatag	acaaacaatc	tcatatgctg	ctcatgtaag	acatgactaa	ggaagatgct	7260
ggaaattact	ctttccacct	tcagccctt	ggcctctcca	ccagtgggcg	tgtctctgtc	7320
tatagtgtgg	acgtgataac	acctctaaaa	gatgttaatg	tgattgaagg	caccaaggct	7380
gtgcttgaat	gtaagggtgtc	agtccttgat	gtgacttctg	ttaagtggta	cttaaatgat	7440
gaacaaatca	agcctgatga	ccgtgtacag	gccatttgtga	aaggtactaa	acagcgacta	7500
gtcattaacc	gaactcatgc	ttcagacgaa	ggaccttata	agctgatagt	tggcagagtt	7560
gaaaccaact	gtaatctctc	tgtagaaaaa	attaaaatta	tcagaggtct	tcgtgacctt	7620
acctgtacag	aaactcaaaa	tgtggtgttt	gaggttgagc	tgtcccactc	tggaattgat	7680
gtcctgtgga	atttttaagga	caaggaaatc	aagcccagtt	ctaaatataa	aattgaagca	7740
catggaaaaa	tatataaatt	gacagttcta	aatatgatga	aagatgatga	aggaaaatac	7800
acattttacg	cgggagaaaa	tatgacatct	ggaaaaactta	ctgtggcagg	tggggccatc	7860
tccaagccac	tcacagatca	gaccgtagct	gaatcccagg	aagctgtgtt	tgaatgtgaa	7920
gttgccaacc	cagattccaa	aggcgaatgg	ttgagggatg	gcaaacacct	accactgact	7980
aacaacatca	gaagtgagtc	tgatggccac	aaaaggagac	ttatcattgc	tgccacccaa	8040
ttagatgaca	ttggagaata	tacctacaag	gtggccacct	ccaaaacatc	tgccaaactc	8100
aaagttgaag	ctgtcaaaa	taagaagact	ctgaagaacc	tcacagtga	agaaacacag	8160
gatgctgttt	tactgtcgga	gcttacacac	cctaattgtca	aaggtgtcca	gtggatcaaa	8220
aatggagttg	tgttgaatc	caatgaaaag	tatgctatct	ctgtcaaagg	aacaatttca	8280
tctctgagga	ttaaaaactg	tgccatcggt	gatgagtcgt	tttatggctt	caggcttggg	8340
aggcttggag	ccagtgcacg	actgcacgtg	gagactgtca	agatcattaa	aaagccaaa	8400
gatgtgacag	ccttggaaaa	tgccactgtt	gcctttgaag	ttagtgtttc	ccatgacact	8460
gttccagtaa	aatggttcca	taagagtgtg	gaaattaaagc	caagtgacaa	acacagactg	8520
gtctcagaaa	ggaaagtcca	caagctgatg	ctgcagaaca	tctccccctc	agatgctggg	8580
gaatacacag	ctgtgggtcg	gcaattggaa	tgcaaagcaa	aactgtttgt	ggagacatta	8640
catattacaa	aaacctatgaa	aaatatcgag	gtgcctgaga	ccaaaactgc	ctctttttgag	8700
tgtgaggtgt	cccacttcaa	tgtcccttcc	atgtggctga	agaatggtgt	ggaaattgag	8760
atgagtgaag	agttcaagat	agttgtgcag	ggaaaactcc	atcagctgat	catcatgaac	8820
accagcacag	aggactcggc	agaatacaca	tttgtctgtg	gcaatgacca	agtcagtgcc	8880

accctgacag	tcaactccaat	catgattact	tccatgctga	aagacatcaa	cgctgaagaa	8940
aaagacacta	ttacttttga	ggtgacagt	aactatgaag	gcattcttta	caaattggta	9000
aagaatggtg	tggaaatcaa	atcaactgac	aagtgccaga	tgagaaccaa	aaagctcaca	9060
cactcactga	acatcaggaa	tgttcacttt	ggggatgctg	ctgactacac	ctttgtggct	9120
ggaaaagcaa	catcaacagc	cacactttat	gtggaagctc	gtcatataga	atntagga	9180
cacattaagg	acattaagg	actggagaag	aagcgagcca	tgtttgaatg	tgaagtttct	9240
gaacctgaca	tcaactgtaca	gtggatgaaa	gatgaccagg	aactgcagat	cacagacaga	9300
ataaagattc	agaaggagaa	atatgtccac	cgcttctga	tccatccac	cggatgtct	9360
gatgctggga	agtacacagt	ggtggcagga	ggcaacgtgt	caactgcaa	actctttgta	9420
gaaggcagag	atgttcgcat	ccgaagtatt	aaaaaggagg	ttcaggtcat	tgagaaacag	9480
cgtgctgttg	ttgaatttga	ggtcaatgaa	gacgatgttg	atgcccactg	gtataaagat	9540
ggcattgaaa	tcaattttcca	agttcaagaa	cgacacaaat	atgtagtggg	aagaagaatc	9600
caccgaatgt	ttatctctga	gaccagacag	agcgatgcag	gagaatacac	ctttgtggca	9660
ggaaggaaca	ggagttctgt	cactctctat	gtcaatgctc	ctgaaccgcc	ccaagttctg	9720
caggagctcc	agcctgtcac	tgtgcagtct	ggcaagcctg	cccgttctg	tgccatgata	9780
tccggaagac	cacagcccaa	aatttctctg	tacaaggaag	agcagctgct	ttccactggc	9840
ttcaagtgc	aatttcttca	tgatgggcaa	gagtacacgc	ttttgcta	tgaagccttc	9900
ccagaggatg	cggcagtcta	tacctgtgaa	gccagaatg	actatggtgt	tgccacaaca	9960
tcagcttcac	tctcagtgg	agttccagaa	gttgtgtctc	ctgatcagga	aatgcctgtt	10020
tatccacctg	ccatcatcac	cccgttctag	gacactgtca	cttctgaagg	gcagccagcc	10080
cgttttcaat	gccgggtttc	tggaaacagat	ctaaaagtgt	cgtggtacag	caaagacaag	10140
aaaatcaagc	catctcgggt	ctttagaatg	actcaatttg	aagacactta	tcaactggaa	10200
attgccgaag	cttatccaga	agatgaagga	acttacacgt	ttgttgctaa	taatgctgta	10260
ggccaagtat	caagcacagc	caacctgagt	ctggaagctc	ctgaatcaat	tttgcattg	10320
aggattgaac	aagagattga	gatggaaatt	aaagattttt	ctagttcttt	tctgtctgcc	10380
gaggaagaag	gacttcatag	cgccgaactt	caattatcta	aaataaatga	aacacttgaa	10440
cttttgtctg	aatctccagt	ttacccaact	aaatttgatt	ccgaaaagga	aggcactggc	10500
ccaattttca	tcaaagaagt	gtcaaagtct	gatataagca	tgggggatgt	ggctacactg	10560
tctgtaactg	tcattggcat	ccccaaacct	aaaattcagt	ggttctttta	tggagtgtct	10620
ttaaccctct	ctgctgacta	caaatttggt	tttgacgggt	atgatcatag	cctgatcatt	10680
ctgttcacca	aattggagga	tgagggagag	tatacatgta	tggccagtaa	tgactatgga	10740
aagacaatat	gtagtgccta	tctaaaaatt	aattccaaag	gagaggggtc	caaagacact	10800
gaaacagaat	cagcagtggc	aaaatctctg	gaaaagctgg	gaggtccttg	tcctcctcac	10860
ttccttaagg	agttaaaacc	aattcgctgt	gctcaagggc	ttcctgccat	ctttgagtac	10920
acagtgggtg	gagagcctgc	ccctactgtt	acatggttca	aagaaaacaa	gcagctttgc	10980
accagtgttt	attacactat	cattcataac	cctaattggct	ctggaacttt	cattgtcaat	11040
gaccctcaga	gggaagacag	tggcctctat	atctgtaaag	cagagaatat	gttgggtgag	11100
tccacctgtg	cagcagagct	gcttggtgct	ctggaagaca	cagacatgac	tgataccccc	11160
tgcaaagcaa	agtccacacc	agaggctcct	gaggattttc	cacagacacc	cttaaagggt	11220
cccgcagtgt	aagcacttga	ctcggagcag	gaaattgcaa	cgtttgtaaa	agacaccatt	11280
ttgaaaagctg	ctttaattac	agaagaaaac	cagcaactat	cttatgagca	tattgctaaa	11340
gccaatgaat	tgagctagca	gcttcccttg	ggagctcagg	aattgcaatc	cattttggag	11400
caagacaagc	tcaactcctga	aagcaccagg	gaatttcttt	gcattcaatg	cagtattcac	11460
tttcagcctc	tcaaggaacc	atctcccaac	ctacagctgc	agattgtaca	gtcccagaaa	11520
accttctcca	aagaaggat	tctaattgct	gaagagcctg	agacacaggc	agttctatca	11580
gataccgaga	aaatcttccc	aagtgccatg	tccatagaac	aaattaattc	attaacagtt	11640
gagcctctga	aaactttatt	agctgaacct	gaagggaatt	atccacagtc	ttcaatagaa	11700
cctccaatgc	attcttatct	aacctctgtg	gctgaggaag	tactttcact	aaaagaaaag	11760
acagtatctg	acaccaacag	agagcaaaga	gtgactcttc	aaaagcaaga	ggcacaaggt	11820
gcgctcatct	tgagtacag	cttagctgag	ggacacgtgg	agagtctcca	gagtcctgat	11880
gtcatgatct	ctcaggtaaa	ctatgagccc	ctagtccctt	cagaacactc	atgcacagaa	11940
ggaggtaaaa	ttttgataga	aagtgc aaat	ccactggaaa	atgcagggca	agattctgcg	12000
gtcagaattg	aggaaggcaa	gtccttaaga	tttccactag	cacttgaaga	aaagcaggta	12060
ctgctcaaag	aagagcattc	tgacaacgtg	gtgatgcccc	cagaccaa	cattgagttc	12120
aaaagagagc	ccgtggcaat	aaagaaagtg	caggaggtac	aggggaaggga	ccttctttct	12180
aaggaaagct	tgctttctgg	tattccagaa	gagcagagat	taaacctgaa	aattcaa	12240
tgccgggctt	tgcaagcagc	cgtggccagc	gagcagccag	gtcttttctc	tgagtggcta	12300
agaaatattg	aaaagggtga	ggtcgaggct	gtaaacatca	cccaagagcc	cagacacatc	12360
atgtgcatgt	accttggttac	ttcggcaaa	tctgtaacag	aagaagtaac	catcattatt	12420

gaagatgttg	atcctcaaat	ggctaacctg	aaaatggaac	ttagggatgc	tttgtgtgct	12480
attatatatg	aggaaataga	catcctaaca	gctgagggtc	ctagaattca	gcaaggagcc	12540
aaaacaagtt	tgcaagaaga	aatggattct	ttttcaggtt	cacagaaggt	tgaacccatt	12600
actgaaccag	aagttgaatc	taaatatctg	atctcaactg	aagaggtcag	ttattttaac	12660
gtgcaaagta	gggttaaata	tttggaatgcc	acacctgtca	ctaaaggggt	tgcttcagct	12720
gttgtctctg	acgaaaaaca	agatgagagt	ctgaaaccat	cagaggaaaa	agaggagtct	12780
tcctctgaaa	gtggtactga	ggaggttgct	acagtaaaga	tacaggaagc	tgaggggtggc	12840
ttaatcaaa	aggatggccc	catgatacat	acacctttag	tggacactgt	ttctgaggaa	12900
ggtgatattg	tacacctcac	aacatccata	acaaatgcta	aagaggtgaa	ttggtatttt	12960
gagaataaac	tgggtgccttc	agatgaaaa	ttcaagtgtt	tacaagatca	aaatacatat	13020
acgctagtca	tcgacaaa	aaataccgaa	gaccatcaag	gagagtatgt	ctgtgaggcc	13080
ttgaatgaca	gcgaaaaaac	agcaacttca	gccaaactca	ctgtagtata	aagagctgcc	13140
ccagtgatca	agaggaaaat	cgaacccctg	gaagtagcac	tgggccacct	agccaaattc	13200
acctgtgaga	tccaaagtgc	tcccaatgtc	cgggtccagt	gggtttaaagc	tggccgagaa	13260
atztatgaga	gtgacaagt	ttctatttga	tcttcaaagt	atatctccag	ccttgaaatc	13320
ctgagaaccc	aggtggttga	ctgcggcgag	tatacatgca	aagcttccaa	tgagtatggc	13380
agtgtcagct	ctcacgccac	actaactgtg	acagtgcttg	gaggtgaaaa	gaaagttcgc	13440
aaattacttc	cggaaacgtaa	acctgaacca	aaggaagaag	ttgttctgaa	aagcgttcta	13500
agaaaaagac	ctgaagaaga	agaacctaaa	gtagaacctt	aaaaactaga	aaaagttaaa	13560
aaacctgcag	taccagaacc	accacctcca	aaacctgttg	aagaggttga	agtacctact	13620
gttacaaaaa	gggaaaggaa	gattcctgaa	ccaacaaaag	tgcttgaaat	caagccagca	13680
atacctctcc	ctgcacctga	accgaaacca	aagcccgaag	cagaagtga	aacaatcaaa	13740
ccacctcctg	tggaaacctga	accaaccccc	atcgctgccc	cagtaacagt	gccagtgggt	13800
ggaaagaaag	cagaagccaa	agcacctaag	gaagaggctg	ccaagccaaa	aggtcctatc	13860
aaaggtgtac	caaaaaagac	tccttcacca	atagaagccg	aaaggagaaa	gttaaggcca	13920
ggaaagtgtg	gagagaaaac	tcctgatgaa	gccccgttca	cctaccagct	aaaggctgtg	13980
ccactgaagt	ttgtgaaaga	aatcaaaagac	atcatcttga	cagaatcaga	gttcgttggc	14040
tcttcagcaa	tctttgaatg	tttgggtctcc	ccttccactg	caattacaac	ctggatgaaa	14100
gacggtagca	atatccgtga	gagtcccaag	cacaggttta	ttgcagatgg	taaagacaga	14160
aagctgcaca	tcattgatgt	tcaactttcc	gatgctgggt	aatacacctg	tgttttacgt	14220
ttgggaaaca	aagaaaagac	ctccacggct	aaacttggtg	tagaagaact	tcctgtgcgt	14280
tttgtaaaaa	cactggaaga	ggaagtccaa	gtggtcaaa	gacagccatt	gtacttgagc	14340
tgcgagttaa	acaaagagcg	tgacgtggct	tggaggaagg	atggcaagat	tgtggtggag	14400
aaacctggcg	gaattgtgcc	aggcgctcatt	ggcttgatgc	gggctctgac	catcaacgat	14460
gcagatgaca	cagatgctgg	aacatacaca	gttactgtgg	aaaacgcca	caacctggag	14520
tgttcatctt	gcgtaaaagt	agtagaagtc	attagagatt	ggctgggtgaa	acctatacga	14580
gaccagcatg	tgaaccccaa	ggggacagct	atttttgctt	gtgatatagc	aaaagatact	14640
ccaaacatta	agtggttcaa	aggatatgat	gaaatccctg	cggaaaccaa	tgataagact	14700
gaaatactga	gagatggaaa	tcatctgtac	ctcaaaatta	agaatgctat	gccagaagat	14760
attgctgagt	atgcagtgga	aattgaagga	aaaagatacc	ctgcaaagct	gacacttgga	14820
gagcgtgaag	ttgaactgct	taaaccaata	gaggacgtta	ccatttatga	gaaagaaagt	14880
gcaagctttg	atgcagaaat	ctcagaggca	gacattcctg	gacaatggaa	actgaaagga	14940
gaacttctaa	ggccctcacc	tacttgtgaa	atcaaagcag	aaggtggaaa	acgcttctta	15000
actttgcaca	aagtcaaact	ggaccaagct	ggtgaagtcc	tctaccaggc	ccttaatgca	15060
attacaactg	ccattttgac	agtaaaagaa	atcgaacttg	actttgctgt	gcccctgaag	15120
gatgtcactg	ttccagaaag	gcgacaggct	cgattcgaat	gtgtcctcac	ccgagaggca	15180
aatgtttatat	ggtccaaagg	acctgatata	attaagtcac	ctgacaaatt	tgatatcatc	15240
gctgatggaa	agaaacatat	tcttggtatt	aatgattctc	aatttgatga	tgaaggggtc	15300
tataactgtg	aggtggaggg	caagaagacc	tcagctcggt	tgtttgtcac	aggtataaga	15360
ctgaaattca	tgctacctct	tgaagatcaa	acagtaaaag	aaggtgaaac	agcaactttt	15420
gtttgtgaac	tttctcatga	aaaaatgcat	gtagtctggt	tcaaaaatga	tgccaaactc	15480
catacaagca	gaacagtact	catctcttct	gaggggcaaga	ctcacaattt	ggaaatgaaa	15540
gaagtgcacat	tggatgatata	atctcagata	aaagctcaag	tcaaggagct	gagctccaca	15600
gcacagctga	aggtccttaga	ggccgatccc	tacttccactg	tgaaattaca	tgacaaaact	15660
gcagtggaga	aggatgagat	tactttgaag	tgtgaagtga	gcaaagatgt	accagtga	15720
tggttcaaa	atggtgaaga	gattgtccct	tcacccaaat	attctatcaa	ggcagatggc	15780
ctgcgccgca	tcttaaaaaat	caaaaaggcg	gaccttaaa	ataaaggcga	atatgtgtgt	15840
gactgtggca	cagacaagac	caaggcaa	gttactgttg	aggctcgact	aatagaagt	15900
gaaaagcctc	tgtacggagt	agaggtgttt	gttgggtgaa	cagcccactt	tgaaattgaa	15960

ctttctgaac	ctgatgttca	cggccagtg	aagctgaaag	gacagccttt	gacagcttcc	16020
cctgactgtg	aaatcattga	ggatggaaag	aagcatattc	tgatccttca	taactgtcag	16080
ctgggtatga	caggagaggt	ttccttccag	gctgctaata	ccaaatctgc	agccaatctg	16140
aaagtgaag	aattgcctct	tatcttcatc	acacctctca	gtgatgttaa	agtcttcgag	16200
aaagatgagg	ctaagtttga	gtgtgaagta	tccagggagc	ccaaaacatt	ccgttggcta	16260
aaaggaaccc	aggaaatcac	aggtgatgac	agatttgagc	ttataaagga	tggcactaag	16320
cattcaatgg	tgatcaagtc	agctgctttt	gaagatgaag	caaaatacat	gtttgaagct	16380
gaagataaag	acacaagtgg	caaactgata	attgaaggaa	tccggctcaa	attcctcacc	16440
cctctcaaa	atgtaactgc	caaagagaag	gaaagtgcgt	tatttactgt	ggagttatct	16500
catgataaca	tccgagttaa	atggttcaag	aatgaccagc	gcctacacac	caccaggctc	16560
gtctcaatgc	aagacgaagg	gaaaactcat	tcgatcacat	tcaaagacct	gtctattgat	16620
gacacctccc	aaattagagt	agaagctatg	gggatgagtt	cagaagctaa	actcactgtg	16680
cttgagggag	acccatattt	tacaggaaaa	cttcaagatt	atactgggtg	agagaaagat	16740
gaagtatttc	tacagtgtga	aattagcaaa	gcagatgcac	cagtgaagt	gtttaaggat	16800
gggaaggaaa	taaagccatc	caaaaatgct	gttattaaga	cagatggcaa	gaaacgcata	16860
ctaataccta	agaaagcctt	gaaatcagat	attggacagt	acacctgtga	ctgtgggaca	16920
gataagacct	caggaaaaact	tgacattgag	gatcgggaaa	ttaaactggt	gcgacccctg	16980
cacagtgtgg	aggtgatgga	gactgagaca	gcacgctttg	aaaccgaaat	ctctgaagat	17040
gatatccacg	ccaactggaa	actcaaggga	gaggccctac	tccaaacacc	tgattgtgaa	17100
attaaggaag	aaggcaaaat	acactccctt	gttttgcaca	actgtcgcct	ggaccagacg	17160
ggtgggggtg	atttccaagc	tgccaatggt	aaatctagtg	cccacctccg	agttaagcca	17220
cgagtaattg	gtcttctgag	gcctttaaag	gatgtcaccg	tgactgcagg	ggaaacagcc	17280
accttcgact	gcgagctctc	ctacgaagat	atcccagtg	aatggtatct	caaagggag	17340
aaactagagc	ccagcgataa	ggtggtccca	cgttcagaag	gaaaagtcca	tacacttact	17400
ctgagggatg	taaagttaga	agatgctggg	gaagtccaac	taacagcaaa	agatttcaaa	17460
actcacgcca	acctctttgt	gaaagaaccc	ccagttgaat	tcactaagcc	tcttgaggac	17520
cagacggtcg	aagagggagc	cactgcagtg	ctggagtgtg	aagtctccag	agaaaatgct	17580
aaggtgaaat	ggttcaaaaa	tgggacagaa	atcctcaaaa	gcaagaagta	tgaaattggt	17640
gctgatggca	gggtcagaaa	acttggtata	catgactgta	ccccagagga	tattaaaaca	17700
tacacttgtg	atgctaagga	ttttaagact	tctgttaacc	tgaatgtcgt	gcctcctcat	17760
gtggaattct	taagaccact	caccgacctt	caagttagag	aaaaagaaat	ggctcgattt	17820
gagtgtgaac	tttcccagag	aaatgctaag	gttaagtgg	ttaaagatgg	tgctgaaatt	17880
aaaaagggca	aaaaatatga	catcatatcc	aagggagcag	tgcgattctt	tgctcatcaac	17940
aaatgtctac	tggatgatga	agctgaatat	tctgtgaaag	taaggacagc	gagaacttct	18000
ggcatgctga	cagttctgga	agaagaagct	gtctttacca	aaaatcttgc	caacattgaa	18060
gttagtgaaa	cagacactat	aaaactggtt	tgtgaagtct	ccaaacctgg	cgcagaagt	18120
atttggtata	aaggggatga	ggagatcatt	gaaacaggaa	gatatgaaat	actgactgaa	18180
ggacggaaga	gaatcctggt	cattcagaac	gctcaccttg	aggatgctgg	caactacaac	18240
tgtcgactcc	caagctctcg	aaccgatggc	aaagtcaaa	tacatgaact	ggctgctgaa	18300
tttatctcaa	agcctcaaaa	ccttgaaata	cttgaaggag	aaaaggctga	atttgtctgc	18360
tctatatcaa	aagaaagctt	tccagtcag	tggaaagagg	atgataagac	acttgaatct	18420
ggagataaat	atgacgttat	tgtgatggt	aaaagagggt	tcctagtgtg	gaaagatgcc	18480
acattacaag	atatgggcac	ttacgttgct	atggtagggg	ccgccagagc	agcagctcac	18540
ttgacagtca	ttgaaaaact	caggatcgta	gttctcttta	aggacacccg	ggtgaaggaa	18600
caacaggaag	ttgtcttcaa	ctgtgaagtc	aatactgaag	gtgccaaagc	caaattggtt	18660
agaaatgaag	aagctatatt	tgatagttca	aaatacatca	ttctccaaaa	agacctagtc	18720
tacaccctca	gaattagaga	tgcacactta	gatgaccaag	ccaactataa	tgtgtctttg	18780
accaatcaca	gaggtgaaaa	tgttaaaagt	gcagccaatc	taatagtaga	agaggaagac	18840
cttaggattg	ttgagcctct	taaagatatt	gaaacaatgg	agaagaaatc	tgctcacattc	18900
tggtgcaagg	tgaatcgtct	caatgtaaca	ctgaagtggg	ccaaaaatgg	tgaagaagtg	18960
ccttttgaca	accgtgtctc	atacagagtt	gataagtaca	agcacatggt	aaccattaaa	19020
gactgtggct	tcccagatga	aggtgaatac	attgtcactg	ctggacaaga	taaatctgtt	19080
gctgagcttc	tcatcataga	agccccgaca	gaatttggtg	aacacttgga	agatcagaca	19140
gtcactgagt	tcgatgacgc	tgtcttctcc	tgccagctct	ccagagagaa	agccaatgta	19200
aaatggtaca	gaaatgggag	agaaatcaaa	gaaggcaaaa	aatacaaat	tgaaaaagat	19260
ggaagtatac	acagactcat	tataaaagat	tgacggctgg	atgatgagtg	tgaatatgct	19320
tgcggggtag	aagacaggaa	gtctcgtgct	agactttttg	tggaaagaa	tcctgttgag	19380
atcatcaggc	ctccacaaga	tattcttgaa	gcccctgggt	ctgatgttgt	cttttttagca	19440
gaactcaata	aagataaggt	ggaagtccaa	tggctaagaa	ataacatggt	tgttgtccag	19500

ggtgataaac	accagatgat	gagtgaagga	aagatacatc	gactacagat	ttgtgatatt	19560
aagccccgtg	accaggggtga	atacagattt	attgccaaag	acaaagaagc	cagagctaag	19620
cttgaactgg	cagctgcacc	aaaaatcaag	acagctgacc	aagaccttgt	ggttgatgtt	19680
ggcaagcctc	tgacaatggt	ggtgccatat	gatgcctacc	ccaaagcaga	agctgaatgg	19740
tttaaagaaa	atgaaccttt	atctacaaaa	accattgata	ctacggctga	acaaacttct	19800
ttcagaattt	tagaagccaa	gaaaggagac	aaagggaggt	ataaaattgt	gcttcagaac	19860
aaacatggaa	aagcagaagg	attcatcaat	ttaaaagtta	ttgatgttcc	tgggccagta	19920
cgtaacttag	aagtgcacaga	aacatttgat	ggtgaagtga	gccttgcttg	ggaagaacct	19980
ttaactgatg	gtggaagcaa	aatcataggt	tacgttggtg	aaagacgtga	cattaagaga	20040
aagacctggg	ttctggccac	agaccgtgca	gagagttgtg	agtttactgt	cactggtcta	20100
cagaaaggag	gagttgagta	cctattccgt	gtgagtgcaa	gaaacagagt	tggcactggg	20160
gagccagtag	aaactgacaa	tcctgtagaa	gcaaggagta	aatatgatgt	tccaggccct	20220
cctttgaatg	taaccatcac	tgatgtgaat	cgatttggtg	tctcactgac	atgggaacca	20280
ccagagtatg	atggaggtgc	tgagatcaca	aactacgtca	ttgaattaag	agacaagact	20340
tctatcaggt	gggatactgc	catgactgtg	agagctgaag	acctgtctgc	aactgttact	20400
gatgtggtag	aaggacagga	gtacagtttc	cgagtgcagag	cccaaatcg	aattggagtt	20460
ggaaaaccaa	gtgcagccac	acccttcgtc	aaagttgctg	atccaattga	gagaccaagt	20520
cctcctgtaa	acctaacttc	ctcagatcag	actcagtcac	cagttcagct	caaattggaa	20580
cctcctctga	aagatggagg	aagcccaata	ttaggctata	taattgagcg	atgcgaagaa	20640
ggaaaagata	attggattcg	ttgcaatatg	aaacttgctc	ctgaactgac	ttacaagggt	20700
accggatttg	aaaaaggaaa	taaatattta	tatagagtat	ctgcagaaaa	taaagctggg	20760
gtttcagatc	catctgaaat	tcttggtcct	ctcacgcgtg	acgatgcatt	tggtgaacca	20820
acaatggatt	taagtgcatt	taaagatggg	ctggaagtta	ttgtcccaaa	tcctatcacg	20880
atcctgggtc	caagtacagg	ctatccaagg	ccaactgcaa	cctgggtgtt	tggagataaa	20940
gtactagaaa	caggggacgg	ggtgaaaatg	aagaccttgt	ctgcctatgc	cgaacttgtc	21000
atcttctcaa	gtgaacgttc	agacaagggc	atttatacac	tgaaattaga	aaaccgtgtg	21060
aaaacaattt	ctggggaaat	tgatgtcaat	gtaattgctc	gccaagtgc	acccaaagaa	21120
ttgaaatttg	gtgatataac	caaggactca	gtacatttga	cttggaacc	acctgatgat	21180
gatggaggaa	gtccgttaac	tggatacgtt	gttgaaaaac	gagaagtgcag	ccggaaaaca	21240
tggactaaag	ttatggactt	tgtgactgat	ctagaattca	cagttcctga	tcttgttcaa	21300
ggaaaagagt	acttatttta	agtttgtgct	cgtaacaaat	gtggccctgg	agaacctgca	21360
tatgttgatg	aacctgtaaa	tatgtcaact	cctgcaacgg	tacctgacct	accagagaat	21420
gttaaatgga	gagatcgaac	agccaatagc	atcttcttaa	catgggatcc	acctaaaaat	21480
gatggtggtt	cacgcaccaa	aggatatata	gttgaaagat	gtccacgtgg	ttctgataaa	21540
tgggttgctt	gtggagaacc	tgttgacaga	acaaaaatgg	aagtgcacagg	tcttgaggaa	21600
ggcaaatggt	atgcctaccg	cgtgaagacc	ttaaacaggc	aggggtgctag	caaaccaagc	21660
agaccacacg	aggaaatcca	ggctgtggac	acacaagagg	ccccagaaat	cttcctcgat	21720
gtgaagctcc	ttgctggtct	cactgtaaaa	gctgggacca	agattgaact	tcctgccacc	21780
gtaaccggaa	aacctgaacc	taaaataact	tggacaaaag	ctgatatgat	tctgaagcag	21840
gacaaaagaa	ttaccattga	aaatgtccct	aagaaatcca	cagtgcactat	tggtgatagt	21900
aagagaagtg	actatggcac	atatatcatt	gaggtgtgga	atgtgtgtgg	ccgggccact	21960
gctgtggtgg	aagtgaacgt	cttagataaa	cccggaccac	cagctgcctt	tgacatcaca	22020
gatgtaacca	atgagtcacg	tcttctaaca	tggaaaccac	cacgcgatga	tggtggatct	22080
aagatcacaa	actatgttgt	ggagagacga	gcaactgata	gtgaagtgtg	gcacaagctc	22140
tcatccaccg	tcaaggatac	aaacttcaag	gccaccaa	taatcccaa	taaagagtac	22200
atcttcagag	ttgctgcaga	aaacatgtat	ggtgctgggt	aaccagttca	ggcctctcca	22260
ataacagcca	aatatcagtt	tgatccacct	ggtcctccaa	ctgcgctaga	accttctgat	22320
atcactaaag	acgcagtgc	tctcacatgg	tgtgagccag	atgatgatgg	tggcagccca	22380
atcacaggat	actgggttga	aagactggat	cctgatacag	ataaatgggt	tagatgcaat	22440
aagatgccag	taaaggacac	aacatacaga	gtgaaaggct	tcactaataa	gaaaaaatac	22500
agattccgtg	tggttggtga	aaatcttgct	ggacctggaa	aaccaagcaa	atcaactgaa	22560
ccaatcttaa	taaaggatcc	catagatcct	ccatggcccc	ctggaaaacc	aactgtaaaa	22620
gatgtaggca	aaacatcagt	aaggttgaat	tggacaaaac	cagaacatga	tggaggtgca	22680
aagattgagt	cttatgtcat	tgaaatgctg	aagactggaa	cagatgagtg	ggtcagagtg	22740
gcggaagggg	ttcccaccac	tcagcacttg	ctcccagggc	tcatggaagg	acaggaatac	22800
tcattccgag	ttagagctgt	gaataagggt	ggggaaagtg	aaccagtgga	acccagtgac	22860
cctgtgcttt	gccgggagaa	gctatatcct	ccatcaccac	cacgctggct	tgaagttatt	22920
aatatcacaa	aaaatacagc	agacctaaaa	tggacagttc	ctgagaaaga	tggagggtcc	22980
cccatcacca	actacattgt	ggaaaagaga	gacgtcaggc	gaaaaggctg	gcaaacagtg	23040

gataccactg	tcaaggacac	caagtgcaca	gtcaccacac	tgactgaggg	ctctttatat	23100
gtgttccgag	ttgctgcaga	aaatgctata	ggacaaagcg	actacaccga	aattgaggac	23160
tctgtgctgg	ccaaagacac	ctttaccact	cctggaccac	cctacgccct	ggcagtgggt	23220
gatgtgacaa	aacgacatgt	tgacctaaag	tgaggagccac	ctaaaaatga	tggtggaaga	23280
ccaatacaga	gatatgtcat	tgagaagaaa	gaaagggttag	gtaccggttg	ggtgaaagct	23340
ggaaagactg	caggacctga	ctgtaacttc	agagtaactg	atgtcatcga	aggaacagag	23400
gtccagtttc	aggttcgggc	tgaaaaatgaa	gctggagttg	gccacccaag	tgaaccaca	23460
gaaatcctat	ccattgaaga	tccaacaagt	cctccctcac	cacccttga	cctacatgtg	23520
actgatgctg	ggagaaaaaca	cattgccatt	gcttggaagc	ctccagagaa	aaatgggtgga	23580
agtcctatca	taggatacca	tgttgaaatg	tgtccagtag	gcactgagaa	atggatgaga	23640
gttaattctc	gccaataaaa	ggacttgaaa	ttcaagggtt	aagaagggtg	tgttcctgac	23700
aaagaatatg	tcctgagagt	gagagcagtc	aatgctattg	gtgtcagcga	gccatctgaa	23760
atctctgaaa	atgtggttgc	caaagaccca	gactgcaagc	caacaattga	cctggagact	23820
catgacatta	ttgttattga	aggtgaaaag	ttaagcattc	ctgttcctt	cagagctgtc	23880
ccagttccaa	ctgttagttg	gcataaagat	ggcaaagaag	ttaaagcaag	tgatagatta	23940
acaatgaaga	atgatcacat	ctctgcacac	cttgaagttc	ccaagagtgt	ccgtgcagat	24000
gccggaatth	ataccattac	actggagaat	aagctcggct	cagcaacagc	ctcaatcaat	24060
gtcaaagtca	taggcctacc	tggaccatgc	aaagatatta	aagcaagtga	cattaccaag	24120
agttcttgta	agttaacttg	ggaacctcca	gaatttgatg	gtggaacccc	aattcttcat	24180
tatgtcctgg	agcgagagaa	agctgggagg	agaacatata	taccagtcac	gtctgggtgag	24240
aacaaactgt	catggactgt	gaaggatctc	ataccaaatg	gtgaataact	cttccgtgtt	24300
aaagcagtca	acaaggttgg	tggaggagaa	tatattgaac	tgaaaaatcc	agtcattgct	24360
caagatccaa	agcaaccccc	tgatccacct	gtagatgtag	aggttcataa	tcctacagcg	24420
gaggcaatga	ctattacatg	gaagccacct	ttgtatgatg	gagggagcaa	gataatgggc	24480
tacatcatatg	agaagattgc	taagggtgaa	gaaaggtgga	agagatgcaa	tgaacacctg	24540
gtaccaatcc	tgacctatac	agcaaaaagga	cttgaagagg	ggaaagagta	ccaattccgt	24600
gtgagagcag	agaacgccgc	gggtattagt	gaaccttctc	gggctactcc	tccaaccaa	24660
gctgtagatc	ccattgatgc	ccccaaagtc	attctgagaa	caagcctaga	agtgaacga	24720
ggtgatgaaa	tagcacttga	tgcaagtatt	tctggatcac	cttaccacac	tattacatgg	24780
ataaaggatg	aaaatgttat	tgtaccagag	gaaattaaga	agcgtgcagc	acccttggtt	24840
aggagaagga	agggtgaagt	tcaagaagaa	gaaccatttg	tcctgcctct	gacacagcgt	24900
ttgagtattg	acaacagcaa	aaaggagaaa	tctcagctac	gcgtccgaga	ttctctccga	24960
cctgaaccatg	gtctgtatat	gatcaaagtt	gaaaatgacc	acggtattgc	aaaagctcct	25020
tgtactgtca	gtgtgttaga	tacaccggga	ccaccaatca	actttgtatt	tgaagatatc	25080
agaaagacct	cagtcctttg	taaatgggaa	ccacccttg	atgatgggtg	cagtgaatc	25140
ataaactaca	ctttggaaaa	gaaagacaag	acaaaacccg	actcagaatg	gattgttgtc	25200
acttcaacac	ttagacattg	caaattattca	gtaacaaaac	tgattgaagg	aaaagagtac	25260
ctcttccgtg	taagagctga	aaacagattt	gggccaggtc	caccatgtgt	ttcaaagcca	25320
cttgtggcta	aagatccatt	tggaccacct	gatgcaccag	ataagcccat	tggtggaagt	25380
gttaccagca	acagtatgct	agtgaatgg	aatgaaccaa	aagataatgg	aagccccatt	25440
ttgggttact	ggcttgaaaa	acgtgaagtt	aacagctac	attggtctcg	tgtaacaaa	25500
agccttctga	atgccttgaa	agccaatgta	gatggcttat	tagaaggact	cacctatgtc	25560
ttcagagtat	gtgctgaaaa	tgagctgga	cctggaaagt	tcagtccacc	ttcagatccc	25620
aaaacagcac	atgatccaat	ctctcctcct	gggccacct	tccaagagt	cactgacaca	25680
agctctacaa	ctattgaact	agaatgggaa	ccccagctt	tcaatgggtg	tggggaaatt	25740
gttggtctatt	ttgttgataa	gcagttgggt	ggcacaataa	aatggtcacg	ctgcacagag	25800
aagatgatca	aggtccgtca	gtacaccgtc	aaagaaatcc	gagaggggtg	tgattacaaa	25860
cttcgggtga	gtgctgtcaa	tgccgcaggg	gaaggaccgc	ctggagaaac	acaacctgtt	25920
actgtggctg	aaccacaaga	gcctccagct	gtggaactgg	atgtttctgt	caagggtgga	25980
atacaataaa	tggctgggaa	gactcttaga	attccagctg	tggtgactgg	tcgccctgta	26040
cctacaaaag	tatggaccaaa	agaagaaggg	gagctggata	aagaccgtgt	tgtaatagac	26100
aacgttgga	ccaaatctga	actaattatc	aaggatgcac	tgcgaaaaga	ccatggcaga	26160
tatgtgatta	cagctacaaa	tagctgtggg	tccaaatttg	cagcagccag	ggtagaagtt	26220
tttgatgtcc	ctgggtccagt	tcttgactta	aaacctgttg	taacaaacag	aaaaatgtgt	26280
ctacttaact	ggtctgatcc	agaagatgat	ggaggaagtg	aaataacagg	ctttatcatt	26340
gaaagaaaaag	atgccaaagt	gcatacttgg	agacaaccaa	tagagactga	gagatctaaa	26400
tgtgacatca	caggtctgct	tgagggacaa	gaatataagt	tccgtgttat	tgccaagaac	26460
aagtttggt	gtggccctcc	tgttgaaata	ggaccaattc	ttgcagttga	tccactaggt	26520
cctccaacat	ctccagagag	gctcacatac	actgaaagac	aaaggtccac	tatcacactt	26580

gactggaaag	agccccgcag	taatgggtggc	agtcccatcc	aaggatatat	cattgaaaaa	26640
cggcgctcatg	acaaacctga	ctttgaaaga	gttaacaagc	gactctgccc	aaccacatct	26700
tttctggttg	aaaatcttga	tgaacaccaa	atgtatgagt	tccgtgtcaa	agctgtcaat	26760
gaaattggtg	aaagtgaacc	atccctacct	cttaatgtag	tcatacaaga	tgatgaagtg	26820
cctccaacta	ttaagttgcg	tctgagtggt	cgaggagaca	ctatcaaagt	taaggcagga	26880
gagcctgtcc	acatccctgc	agatgtgaca	ggccttccaa	tgcctaagat	tgaatggtcc	26940
aaaaatgaaa	ctgtaattga	aaaaccctac	gatgcacttc	agataaccaa	ggaagaggta	27000
tcccgaagtg	aggcaaaaac	tgagcttagc	attcccaaag	cggtccggga	ggacaaaagg	27060
acttacacag	ttactgcttc	caatcgccct	ggctcagtg	tccgaaatgt	tcacggtgaa	27120
gtatatgacc	gccccatccc	accaagaaat	cttgctgtta	ctgacattaa	agctgaatct	27180
tgctacttga	catgggatgc	ccctcttgat	aatggtggca	gtgaaatcac	ccattatggt	27240
attgacaaac	gtgatgcaag	taggaagaaa	gcagaatggg	aggaagtcac	caacactgct	27300
gtagagaaaa	gatatgggat	ctggaaactt	atccccaatg	gtcagtatga	gttccgagtc	27360
agggcagtg	ataaatatgg	aatcagtgat	gagtgcaaat	cagataaagt	agtcattcaa	27420
gatccttatt	gccttcctgg	acctccagga	aaacccaaaag	ttttggcacg	caccaaagga	27480
tcaatgctat	tgagctggac	tcctcctttg	gacaatgggt	gctctccaat	tactggctac	27540
tggctggaga	aaagagaaga	gggaagtcct	tattggtcac	gtggttagccg	agcaccataa	27600
accaaagtgg	gattgaaagg	cgtggaatgt	aatgttcctc	gtttgcttga	aggcggttaa	27660
taccagttca	gagccatggc	aataaatgct	gcaggaattg	gtcctcccag	tgaaccatca	27720
gatccagagg	ttgcaggaga	tcccatatgt	ccaccggggc	caccttcttg	cccagaagtt	27780
aaagataaaa	cgaaagtcaag	catctcacta	ggatggaaac	ctccagccaa	agatgggtggc	27840
agcccaatca	aaggatacat	tgtagaaatg	caagaagaag	gtactactga	ctggaaaaga	27900
gtaaatgaac	cagacaaaact	tataactacc	tgtgaatgtg	tgggtgcctaa	tctgaaagag	27960
ctcaggaagt	acagattcag	agtgaagagt	gtcaatgaag	ctggtgaatc	tgaaccaagt	28020
gatacaactg	gggagatccc	tgccactgat	attcagaagg	aaccagaagt	tttcatgtac	28080
attggagcac	aggactgtct	ggtttgtaaa	gctgggtcac	agattaggat	tcctgctgtc	28140
atcaagggac	gccccaacacc	aaaatcatct	tgggaatttg	atggaaaggc	aaagaaagca	28200
atgaaggatg	gagttcatga	catacccgaa	gatgcacagc	tggagactgc	tgaaaactcc	28260
tcagtaatta	ttattccgga	gtgtaaacga	tctcatacag	gcaaatacag	catcacagcc	28320
aagaataaag	caggacaaaa	gactgcaaat	tgcagagtta	aagtcatgga	tgtaccaggc	28380
ccacccaaag	atctgaaagt	cagtgatatc	acaaggggta	gttgagact	ttcatggaag	28440
atgccagacg	acgatggagg	agacaggatc	aaaggctatg	ttattgagaa	gaggactatt	28500
gatggaagag	cctggacca	agtcaatcca	gactgtggaa	gcaccacatt	tgtagtgcct	28560
gatctcctct	ctgaacagca	atatttcttc	cgtgtgcgag	cagaaaaccg	ttttggtatt	28620
ggcccacctg	tggaaaccat	tcagaggacc	actgccagag	atccgatata	tcctcctgat	28680
cctcctatta	aactcaagat	tggcctcatc	acaaagaaca	cagtgcattc	gtcatggaaa	28740
ccccgaaga	atgatggggg	ctcccctgtt	acctactata	ttgttgagtg	ccttgcatgg	28800
gaccctactg	ggacaaaaga	agaagcctgg	aggcagtgca	ataagcgtga	tgtggaagaa	28860
ctgcaattta	ctggtgaaag	cctagtagaa	gggtggggaat	atgaattccg	agtcaaagct	28920
gtcaatgctg	caggagtcat	caagccttca	gccactgttg	gcccctgtga	ctgtcaaaga	28980
ccagatagtc	caccatcaat	tgatctaaaa	gaattctatg	aggttgaaga	aggaaccaat	29040
gttaacattg	tggccaaatg	taaaggtgtg	ccattcccga	cactaacctg	gtttaaagct	29100
cctccaaaga	agcctgataa	caaagaacct	gttctctatg	acacccatgt	caacaaactg	29160
gtggtagatg	atacttgcac	tttagttatt	ccgcagttct	gcaggagtga	cactggctta	29220
tataccatca	cagctgtaaa	taatctggga	acagcatcaa	aggagatgag	actgaatgtc	29280
ctgggtcgtc	ctggccctcc	agtgggaccc	ataaaatttg	aatctgtttc	agcagatcaa	29340
atgacactat	cttggtttcc	acctaaagat	gatggtgggt	ctaagattac	aaactatgta	29400
attgagaaaa	gagaagctaa	caggaagaca	tgggtccatg	tctccagtga	acctaaaggag	29460
tgacacgtaca	cgattcccaa	attgctagaa	ggccatgaat	atgtattccg	aatcatggcc	29520
cagaataaat	atggcatttg	agaacctctt	gcagtgaaac	ctgaaacagc	aagaaacctc	29580
ttctctgttc	ctggagcacc	agataaaacca	acagtgagca	gcgtgactcg	taactccatg	29640
actgtcaact	gggaagagcc	agaatatgat	ggaggctctc	ctgtgacagg	gtactggctg	29700
gaaatgaaag	acaccacttc	aaagagatgg	aagagagtta	accgagatcc	tatcaaagcc	29760
atgacttttg	gtgtttctta	taaagtgact	ggtcttattg	aaggttccga	ctatcaattc	29820
cgggtatatg	caatcaatgc	tgctggcggt	ggtccagcaa	gtctgccatc	agaccagcgc	29880
actgctagag	atccaattgc	ccctcctggg	cctccatttc	ccaaagtgc	agattggact	29940
aaatcatctg	cagatctgga	gtggtctccc	ccactaaaag	atggtggatc	caaagtaact	30000
ggatacatcg	ttgaatataa	agaagaagga	aaagaagaat	gggaaaaggg	taaagataaa	30060
gaagtgcagag	gaacaaagct	cgttgtgaca	ggattaaagg	aaggagcatt	ctacaaatgt	30120

agagttagtg	cagtcaacat	tgctggcatt	ggagaacctg	gagaggtcac	agatgtcatt	30180
gaaatgaagg	acagacttgt	ttcacctgac	cttcagctag	atgccagtgt	cagagataga	30240
attgttgctc	atgctggagg	ggtgatccga	atcattgcct	atgtgtctgg	aaagcctcct	30300
ccaaccgtca	cctggaacat	gaatgaaaga	accttacctc	aagaagccac	cattgagacc	30360
acagccatta	gctcatccat	ggtcatcaag	aactgccaga	ggagccatca	aggcgtctat	30420
tctcttcttg	ccaaaaatga	agccggagaa	agaaagaaga	caattattgt	tgatgtatta	30480
gatgttccag	gtcccgttgg	aacaccattc	ctagctcaca	acctaaccac	tgagtcctgc	30540
aaactgacat	ggttttctcc	agaagatgat	ggaggctctc	caatcaccaa	ttatgtcatt	30600
gaaaagcgtg	aatctgaccg	cagagcatgg	accccagtga	catatacagt	taccgcacaa	30660
aatgctactg	tccagggtct	cattcaagga	aaagcctact	ttttccgaat	tgcggtgaa	30720
aatagtattg	gcatgggtcc	atttgttgag	acatcagagg	cacttgttat	cagagagcca	30780
ataactgtac	cagagcgtcc	tgaagacctg	gaagtcaaag	aagttactaa	aaatactgta	30840
actttgactt	ggaatcctcc	taagtatgat	ggtgggtcag	aaattattaa	ctatgtccta	30900
gaaagtccgc	tcattgggac	tgagaagttc	cacaaagtta	caaatagaca	cttgcttagc	30960
agaaaataca	ctgttaaagg	cttaaaagaa	ggtgatacct	atgagtaccg	tgctcagtgt	31020
gtcaacattg	ttggacaagg	caaaccatca	ttttgcacca	aaccaattac	ttgcaaggat	31080
gagctggcac	ccccaacgct	tcacctcgac	ttcagagata	agctcacgat	tcgagttggg	31140
gaagcttttg	ccttcactgg	ccgttactca	ggcaaaccac	agcctaagg	ttcctgggtc	31200
aaagatgaag	ctgatgtgct	ggaagatgat	cgcaactcata	taaagactac	accagcaaca	31260
cttgctttag	agaagatcaa	ggccaaacgt	tcagattccg	gcaaatactg	tgtgggttgt	31320
gagaacagta	caggctctag	gaaaggtttc	tgtcaagtta	atgttggtga	ccatcctgga	31380
ccaccagtag	gaccagttag	ttttgatgag	gtgaccaaag	attacatggg	tatctcttgg	31440
aagcctcctt	tagatgatgg	aggcagtaaa	atcaccaatt	atattattga	gaagaaggaa	31500
gtgggtaaag	acgtctggat	gccagtgcac	tctgcaagtg	ctaaaacaac	atgcaaagtt	31560
tctaaactac	ttgaaggaaa	agattatatt	ttcoggatac	atgctgaaaa	tctgtatgga	31620
ataagtgatc	ctctggtgtc	tgattcaatg	aaagccaaag	atcgtttcag	gggttcctgat	31680
gcacctgatc	agccaattgt	tacagaagtt	accaaagact	ctgcattagt	aacctggaat	31740
aagccacatg	atggaggaaa	acccatcaca	aactacatcc	tggaaaagag	agaaactatg	31800
tctaaacgat	gggctagagt	taccaaagat	cctattcatc	catacactaa	atthaggggt	31860
cctgatcttc	tagaaggatg	tcagtatgaa	ttcogggttt	ctgcagaaaa	tgaaattggg	31920
attggagatc	caagcccacc	atccaaacca	gtcttttgcta	aagatccaat	tgctaaacca	31980
agtcacactg	ttaatcctga	agcaatagat	acaacatgca	attcagtcga	tctaacttgg	32040
cagccaccac	gtcatgatgg	tgggagcaag	attctgggtt	atattgttga	gtaccagaaa	32100
gttgagatg	aagagtggag	aagagccaat	cacacccctg	agtcatgtcc	tgaaactaaa	32160
tataaagtca	ccggtcttcg	ggacgggtcaa	acctataagt	ttagagtgtt	agcagtcaat	32220
gcagctgggt	aatcagatcc	agctcatgtt	ccggagccag	tcctagttaa	agacaggctt	32280
gaacccccctg	agttgattct	tgatgccaac	atggcaagag	aacaacacat	taaagttggg	32340
gatactctaa	gacttagtgc	catcatcaaa	ggagtgccat	tcccaaaagt	aacttggaag	32400
aaagaagaca	gagatgctcc	aactaaagca	agaattgatg	tgactccagt	tggttagcaag	32460
cttgaaattc	gtaatgctgc	ccatgaagat	ggtggaattt	attctttaac	agtgagaaat	32520
ccagctgggt	caaaaactgt	ctcagtaaaa	gtacttgtat	tagataaacc	tgggccacct	32580
agagatctgg	aagtcagtga	aattaggaaa	gattcatgtt	accttacttg	gaaagaacca	32640
ctagatgatg	gtggttctgt	tattaccaat	tatgtgggtg	agaggagaga	tgttgccagc	32700
gcccagtggt	cacctctctc	agctacatca	aagaaaaaga	gtcacttcgc	taagcatctg	32760
aatgaaggca	accagtacct	cttccgagta	gctgaggaga	accagtatgg	acgtggctct	32820
tttgttgaaa	caccaaacc	aatcaaggct	ttggatcctc	tccatccccc	agggccaccc	32880
aaggacctgc	accatgtaga	tggtgacaag	actgaagtct	ccctagtctg	gaataagccg	32940
gatcgtgatg	tggttctctc	aatcactgga	tatttggtag	aatatcaaga	agaaggcacc	33000
caggactgga	ttaaatttaa	gactgtgcac	aacttagagt	gtgtgggttac	tggaactaca	33060
caaggaaaag	cctatagatt	ccgtgtaaaa	gctgaaaaac	ttgtgggtct	tggtctccct	33120
gacacaacta	tcccagataga	atgtcaagaa	aaactagtgc	ctccatccgt	ggagctagat	33180
gtgaaattaa	ttgaagggtc	tgtgggtaaa	gctggaacca	cagtcagatt	ccctgctatt	33240
ataagagggtg	tgctgttctc	tactgcaaag	tggaacaacc	atgggagtga	gattaaaacc	33300
gatgagcact	acacagttga	aacagacaac	ttctcatcag	tacttaccat	taagaactgc	33360
ttaaggagag	acactgggga	atatcaaata	acagtttcca	atgcagccgg	tagcaaaaca	33420
gtagccgtac	atcttactgt	tcttgatgtt	cctgggccac	caacagggtc	tattaatatt	33480
ctggatgtta	ctcctgaaca	catgactatc	tcatggcagc	cacctaaagg	tgatggagga	33540
agccctgtga	taaattatat	tgttgagaaa	caagatacaa	ggaaagacac	gtgggggtgt	33600
gtctcttccg	gaagcagtaa	gacaaagctg	aaaatcccac	atctgcagaa	gggctgtgaa	33660

tatgttttcc	gagtttagagc	agagaataaag	ataggtgttg	gtcctcccct	tgactccaca	33720
cctactgttg	ctaagcataa	athtagtcct	ccgtctcctc	ctggtaaacc	agtgggttact	33780
gacattactg	aaaatgcagc	aacagtgtct	tggaccctgc	caaaatctga	tggtggcagt	33840
ccaataactg	gctactatat	ggaacgtcga	gaagtaactg	gcaaattgggt	gaggggtcaac	33900
aaaacaccta	tcgctgacct	gaagttcaga	gtgactggac	tctatgaagg	aaatacatat	33960
gagtttagag	tttttgctga	aaatcttgca	ggactaagca	aaccatcccc	aagttctgat	34020
ccaataaaaag	cttgccggcc	catcaaacca	cctggaccac	ctattaatcc	taaactgaaa	34080
gacaagagca	gagaaaacagc	tgattttggtg	tggacaaaagc	ctctcagtga	tggtggtagc	34140
cccattctag	gatattgtagt	ggaatgtcag	aaacctggca	cggcacaatg	gaacaggatt	34200
aataaagatg	aactcattag	gcaatgtgcc	tttagggtac	ctggactaat	tgaaggaaat	34260
gagtacagat	tccgtataaa	ggcagcta	attgtaggag	agggtagagc	aagagaacta	34320
gcagaatctg	tgattgcaaa	agatatcctt	catcctccag	aagtagaact	tgatgttact	34380
tgctcgtgatg	ttattaccgt	gagagtaggc	caaactatcc	gcattctagc	tcgagtcaaa	34440
ggcagacctg	aaccagacat	aacttggact	aaggaaggca	aagtattggt	ccgagaaaaag	34500
agggtaggacc	ttattcagga	tctacctcgt	gttgagttac	aaattaaaga	agctgttaga	34560
gctgatcatg	gcaagtatat	catctcagct	aagaacagca	gtggacatgc	ccaaggttca	34620
gccatcgta	acgtccttga	cagacctggg	ccttgccaga	atttgaagg	taccaatgta	34680
accaaagaga	actgtacaat	ttcttgggaa	aaccactag	ataatggtgg	ctcagaaata	34740
acaaacttca	tagtagaata	tcgcaaacca	aaccagaaag	gctggtcaat	tgttgcatca	34800
gatgtcacta	aacgattaat	caaggccaac	cttttagcca	acaatgaata	ctatttccga	34860
gtttgtgcag	agaataaagt	aggtgttggg	ccaaccatcg	aaacaaaaac	tcccattctg	34920
gctattaacc	ctattgacag	accaggtgag	cctgaaaacc	ttcacattgc	agataaagga	34980
aagacatttg	tctacctaaa	gtggcgagg	cctgactatg	atggtggcag	tccaaatctg	35040
tcatatcatg	ttgagagaag	gcttaagggc	tccgatgact	gggaaagagt	gcataaagga	35100
agcattaaaag	aaactcacta	catggttgac	agatgtgttg	aaaaccagat	ttatgagttc	35160
agagtgcaaa	caaagaatga	aggtggggaa	actgactggg	tgaagacaga	ggaagttggt	35220
gtgaaagaag	acttacaaaa	accagtactt	gatctgaaat	taagtgggg	cctaactgtc	35280
aaagcagggg	acaccattag	gcttgaggca	ggggttagag	gcaaaccatt	cccagaagtt	35340
gcatggacca	aggacaaaga	cgctacagac	ttaacaagat	caccaagggt	caagattgat	35400
acccgtgctg	attcatctaa	attttctctt	actaaagcaa	agcgaagtga	tgggggtaaa	35460
tatgtagtta	cggcaactaa	cacggctggc	agttttgtgg	cctatgccac	tgtcaatggt	35520
ttagataaagc	ctggtcctgt	gagaaatctg	aaaattgttg	atgtgtccag	tgataggtgt	35580
actgtttgct	gggatccacc	agaagatgat	ggtggctgtg	aaatccaaaa	ttatatctca	35640
gaaaaatgtg	agacaaaagcg	aatgggttgg	tctacctatt	ctgctactgt	cttgacacct	35700
ggtactacag	taacacgtct	catagaagga	aatgaatata	ttttcagagt	ccgtgcagaa	35760
aataaaatag	gcacagggcc	tccaacagaa	agtaaaccag	tcatagccaa	aaccaagtat	35820
gataaacctg	gtcgccctga	tccccagaa	gtcactaaag	taagcaaaga	agagatgact	35880
gtggtttgga	atccacctga	atatgatggt	ggaaagtcta	taactggata	ctttttggag	35940
aaaaaggaaa	agcattcaac	acgatgggtc	cctgtcaaca	agagtgcaat	ccctgagaga	36000
cgtatgaaag	tacagaatct	cctcccagac	catgaatatc	agttccgtgt	caaggcagaa	36060
aatgaaattg	gaattggaga	accaagcttg	ccttcaagac	cggtgggtggc	aaaagacccc	36120
atagaggccac	ctggtccacc	aaccaatttc	agagtgggtg	atacaaccaa	acattccata	36180
actcttgggt	ggggaaaacc	agtctatgat	ggtgggtgcac	cgatcattgg	atatgtttgtg	36240
gaaatgagac	caaaaatagc	agatgcgtct	cctgatgaag	gctggaaacg	gtgtaatgct	36300
gcagcacagc	ttgtacgcaa	ggaattcact	gttaccagct	tggatgaaaa	ccaggaatat	36360
gagttcaggg	tgtgtgcca	aaaccaagtt	ggtattgggc	gccctgcaga	gctaaaggaa	36420
gctatcaaac	ctaaagaaat	actagaacct	ccggagattg	atttggatgc	cagcatgagg	36480
aaactggtca	tagtgagagc	aggatgccct	attcgtctct	ttgctatagt	gagaggacga	36540
ccagccccta	aagtcacttg	gcgaaaagtt	ggcattgata	atgtggtcag	aaaaggacaa	36600
gttgatctgg	ttgacactat	ggccttcctt	gtcatcccca	attctaccog	tgatgactca	36660
ggaaaatatt	ccttaacact	tgtgaaccca	gcaggagaaa	aggctgtatt	cgtaaatgtc	36720
agagtattag	acactcctgg	gcctgtgtct	gatttaaaag	tttcagatgt	cactaaaaca	36780
tcatgccatg	tgtcctgggc	ccctcctgaa	aacgacggtg	ggagccaagt	gacacattat	36840
atcgtggaga	aacgtgaggc	agacagaaaag	acatggctga	ccgttacccc	agaagttaag	36900
aaaacaagct	tccatgtaac	caatcttgtc	cctgggaatg	agtattactt	cagagtaact	36960
gctgtcaacg	aatatggccc	tggcgtccca	acagatgtcc	caaaaccagt	gcttgcacat	37020
gatcctctaa	gtgagccgga	tcccccaagg	aaattagaag	cgactgaaat	gaccaagaac	37080
agtgccacct	tagcctggtt	acctccccta	cgtgatggag	gtgctaaaa	cgatggctac	37140
atcattagtt	acagagaaga	agagcagcct	gcagatcgct	ggacagagta	ctcagtggta	37200

aaagatctga	gccttggtgt	cactggccta	aaggaaggaa	agaaatacaa	atttagagta	37260
gcggccagaa	atgctggttg	agtcagtttg	ccaagagaag	ctgaaggagt	gtatgaagcc	37320
aaagagcaac	tggtgccacc	aaagatcctt	atgccagagc	aaataactat	caaagctggg	37380
aaaaaactcc	gaattgaagc	ccatgtgtat	ggaaagcctc	atcccacctg	taaattggaaa	37440
aaaggagaag	atgaagttgt	cacatccagc	cacctggcag	tgcataaagc	agacagctct	37500
tcaattctga	tcataaaaaga	tgtgactagg	aaagacagtg	gttactacag	cctcacagca	37560
gagaacagtt	ctgggacaga	cactcagaaa	atcaaagttg	tagtcatgga	tgcccccgcc	37620
ccccctcagc	ctccatttga	catttctgat	atagacgctg	atgcttgctc	cctgtcatgg	37680
cacatccctc	tggaggacgg	aggcagtaac	atcaccaatt	atatagtgga	gaagtgtgat	37740
gtaagccgag	gtgactgggt	cacggctcta	gcttcagtca	caaaaacttc	ctgcagggtt	37800
ggaaagctga	tcccaggcca	agagtacatc	ttccgggtcc	gtgctgaaaa	ccgatttggc	37860
atttcagagc	ctctcacatc	tccaaagatg	gttgcgagct	tcccatttgg	tgttcctagt	37920
gaaccaaaaga	atgcacgagt	caccaaagtc	aacaaggact	gtatttttgt	tgcttgggac	37980
agaccagata	gtgatggagg	gagccccatt	attggttatc	tgattgaacg	caaggaaaaga	38040
aacagtttgc	tgtgggtgaa	agccaatgat	actcttgtcc	ggtcaactga	atatccttgt	38100
gctggccttg	tagaagggtct	tgagtattca	ttcagaatct	atgccctaaa	caaagctgga	38160
tccagcccac	ccagcaaaacc	cacagaatat	gtaactgcaa	gaatgccagt	tgatcctcct	38220
gggaaacctg	aggttattga	tgtcaccaag	agtactgtat	ctctgatctg	ggctcgtcca	38280
aagcatgatg	gaggcagtaa	aattattggc	tatttcgtag	aagcttgcaa	acttcctggt	38340
gataaatggg	tacggtgcaa	tactgcacct	caccagattc	cccaggaaga	gtacacagct	38400
actggcctag	aagagaaaagc	tcagtatcaa	tttagagcta	ttgccaggac	cgcggtaaac	38460
attagcccac	cttctgaacc	ttctgatcca	gtgactatcc	tgcagaaaaa	tgccccctcc	38520
aggatagacc	tgagtgtggc	tatgaaatct	ttgcttactg	tgaaagctgg	aactaatgtc	38580
tgcttggatg	ctactgtttt	tggtaaaccg	atgccaacag	tttcttggaa	aaaagatggc	38640
acactgctaa	aaccagcaga	aggcataaag	atggccatgc	agcggaatct	gtgcaccttg	38700
gagctattca	gcgtgaaccg	gaaggactca	ggagactata	ccattactgc	tgaaaattca	38760
agtggttcta	aatcagccac	cattaagctt	aaagtgttag	ataaaaccggg	tcctccagca	38820
tctgttaaaa	tcaacaaaat	gtattcagat	cgtgctatgc	tttcttggga	accgcctctt	38880
gaagatggag	gctcagaaat	caccaactat	attggtgaca	aacgtgaaac	aagcaggccc	38940
aactgggctc	aagtctctgc	aactgtgcct	atcaccagct	gcagcgtgga	gaaacttata	39000
gagggccatg	agtatcagtt	ccgtatttgt	gctgaaaaata	aatatggagt	aggcgatcca	39060
gtcttcactg	aaccagcaat	tgccaaaaac	ccatatgacc	caccaggacg	ctgtgatcct	39120
cctgttatta	gcaacataac	caaagatcac	atgacagtca	gctggaagcc	accagcagat	39180
gatgggggct	cacccatcac	tggtctattt	cttgaaaagc	gggaaaccca	ggctgttaac	39240
tggactaagg	tcaacagaaa	acctattata	gaaagaacat	taaaagcaac	aggtcttcaa	39300
gaaggtaccg	aatatgagtt	ccgtgttaca	gctataaata	aagctggacc	aggcaaacc	39360
agtgacgcat	ccaaggccgc	ttatgctcgg	gaccctcagt	atcctcctgc	gccaccggct	39420
ttccctaaag	tatatgatac	aactcgcagc	tctgtgagtc	tatcttgggg	caagccagcc	39480
tatgacggcg	gcagccctat	cattggttat	ctcgttgaag	taaaacgggc	tgactccgat	39540
aactgggtga	ggtgcaactt	accacagaat	ctacagaaaa	cccgccttga	ggttactggc	39600
ctgatggaag	acacacaata	tcaattccgt	gtgtatgccg	ttaataagat	tggatacagt	39660
gaccccatg	atgtgccaga	taaacactat	cccaaggaca	tcttaattcc	acctgagggg	39720
gaacatgatg	cggacttaag	gaagacactc	atattacgtg	ctggagttac	tatgagacta	39780
tatgtaccag	taaaaggacg	cccacctcca	aagattactt	ggtctaaacc	aaatgtcaat	39840
ctaagagaca	ggattggact	ggacataaag	tcaactgact	ttgacacttt	cttgcgctgt	39900
gaaaatgtga	acaaatatga	tgcaggaaaa	tatatcttaa	ccctggagaa	cagctgtggt	39960
aaaaaggaat	ataccattgt	tgtgaaagtg	cttgatactc	ctgggccacc	tatcaatgtg	40020
actgttaagg	aaatatccaa	agactctgct	tatgttacct	gggagcctcc	cattattgat	40080
ggcggaagcc	ccatcataaa	ctatgtggta	caaaaacgtg	atgcagagag	gaaatcctgg	40140
tctacagtga	caactgagtg	ctccaaaaca	agcttcagag	tacctaattt	ggaggaggga	40200
aaatcctact	tcttccgagt	gtttgctgaa	aatgagtatg	gcattgggtga	tcccggtgaa	40260
actcgtgatg	ctgtcaaagc	ttcccaaact	cctggaccag	ttgtggacct	gaaagtgagg	40320
tctgtatcta	agtcacctct	tagcattggc	tggaaaaagc	ctcacagtga	tggtggaagt	40380
cggattattg	gatatgtagt	tgatttctct	actgaagaaa	ataagtggca	acgagttatg	40440
aaatccttaa	gcctacagta	ctctgcaaaa	gatttgactg	aagggaagga	atataccttc	40500
agagtgaagt	ctgagaatga	aaatggagaa	ggaaccccaa	gcgaaatcac	tgttgtggca	40560
agggatgatg	ttgtggctcc	tgatcttgac	ttaaagggtc	tacctgattt	gtgctacttg	40620
gctaaagaaa	acagcaactt	ccggcttaag	atcccataa	aaggcaagcc	agctccatca	40680
gtctcctgga	agaaaagggga	agatcctcta	gcaactgaca	ctagagtcag	tgttgagtca	40740

tctgcggtta	acacaactct	tatagtgtac	gattgccaaa	aatctgatgc	tggaaaatac	40800
acaatcacac	ttaagaatgt	tgctggcacc	aaggaaggaa	ctatctccat	aaaggttggt	40860
ggcaagcctg	gcatccccac	tggaaccaatc	aaatttgatg	aagtcacagc	agaagccatg	40920
accttaaagt	gggctcctcc	aaaggatgat	ggaggttctg	aaatcaccaa	ctatatccta	40980
gagaagaggg	attctgtgaa	caacaagtgg	gtgacgtgcg	cctcagctgt	ccagaaaacc	41040
accttttagag	taaccagact	tcatgagggc	atggaatata	ccttcagggg	cagtgccgaa	41100
aataaatatg	gtgtagggga	aggcctgaaa	tcggagccaa	ttgttgcgag	acatccattt	41160
gatgtgcctg	atgctccccc	acctcccaat	attgtggatg	tcagacacga	ttcagtatct	41220
ctaacttgga	ctgaccccaa	gaaaactggt	ggttctccaa	ttacagggta	tcatctcgag	41280
ttcaaggaaa	gaaacagcct	tttgtggaag	agagctaaca	agactccgat	aaggatgaga	41340
gactttaaag	tgacaggatt	aactgaagg	cttgaatatg	aattccgagt	tatggcaatc	41400
aatttagcag	gtgtgggcaa	gccaaagccta	ccatcagagc	ctgttgtggc	actggaccca	41460
attgatectc	ctggaaaacc	tgaggttatt	aacataacaa	ggaattcagt	gactctcatt	41520
tggaactgaac	ctaaatatga	cgggtggtcat	aagttaactg	gatatatagt	ggagaagcga	41580
gatctacctt	cgaagtcttg	gatgaaagcc	aaccatgtta	atgtcccaga	atgtgccttt	41640
actgtaactg	accttgttga	gggtggaaaa	tatgaattca	gaattagagc	aaagaataca	41700
gcaggtgcta	tcagtgtctc	atcagaaaagt	acagaaaacca	ttattttgcaa	ggatgaatac	41760
gaggcaccaa	caattgtcct	tgatcccaca	ataaaagatg	ggctaacaat	taaagcaggg	41820
gataccattg	ttttgaatgc	cattagcatt	cttggcaaac	cccttccaaa	atcaagttgg	41880
tccaaggcag	gaaaagacat	tagaccatca	gatatcactc	agataaactt	aaccccaaca	41940
tcttccatgc	ttactatcaa	gtatgccact	agaaaagatg	cgggtgaata	taccatcact	42000
gctaccaatc	cttttggcac	gaaggtggaa	catgtgaagg	taacagtcct	tgatgtacct	42060
ggtccccag	gtcctgttga	aatcagtaat	gtttctgctg	aaaaagcaac	acttacatgg	42120
acacctccct	tggaagatgg	cggctcacca	atgaagtcct	atataacttga	aaagagagaa	42180
accagccgac	ttttgtggac	agtggtttct	gaagatattc	agtcttgagc	gcatgtggca	42240
accaaactta	tccaaggaaa	tgagtacatc	ttccgggtct	cagctgtaaa	ccactatggc	42300
aaaggagaac	ctgtacagtc	tgaacctgtc	aaaatggtag	acagatttgg	tccccctggc	42360
cctcctgaaa	aaccagaggt	atcaaatgtc	actaagaaca	ctgccactgt	cagctggaaa	42420
aggccagtgg	atgatggtgg	cagcgaaaatt	acaggatatc	atgtagaaaag	gagagaaaag	42480
aaaagcctgc	gatgggtgag	agcaataaaaa	acaccagttt	ccgatctcag	gtgcaaagta	42540
acaggactgc	aagaaggaaag	cacctacgaa	ttccgtgtca	gtgcagaaaa	cagagcagga	42600
attggtccac	ccagtgaagg	ttcagattct	gttcttagta	aagatgcagc	atatacctca	42660
ggaccacctt	caaattccgca	tgtcactgat	actaccaaga	aatctgcttc	tttggcattg	42720
ggcaagcctc	attatgatgg	tggaacttga	atcactggct	atgtcgtgga	gcatcaaaaa	42780
gtaggagacg	aggcctggat	aaaagatacc	acaggaaccg	ccctcagaat	cactcagttc	42840
gttgttcctg	atcttcagac	taaagaaaaa	tacaacttca	gaatcagtgc	catcaacgat	42900
gcaggtgttg	gggagccagc	ggtgattcca	gatgttgaaa	tcgtagaacg	ggagatggct	42960
cctgattttg	aactagatgc	cgagcttcga	agaacacttg	ttgttagagc	aggactcagt	43020
attaggatat	ttgtgccaat	taaaggtcgt	cctgctcctg	aagtgcacatg	gaccaaagat	43080
aacatacaac	tgaaaaaccg	agccaacatt	gaaaatacgg	aatcatttac	tcttctgatt	43140
atcccgaat	gtaacagata	tgataccggg	aaatttgtca	tgaccattga	aaaccgggct	43200
gggaagaaaa	gtggcctttgt	gaacgtcaga	gtcttggaca	cgccaggccc	agtcctcaac	43260
ctgcggccta	cagacatcac	aaaggacagt	gtcacctctg	actgggacct	ccctctgata	43320
gatggaggct	cacgtataac	aaactacatt	gtagagaaac	gtgaagcaac	acggaaatct	43380
tattccacag	ccaccactaa	gtgccataaa	tgcacatata	aagttaccgg	cttgtctgaa	43440
gggtgtgaat	atttcttcag	agtgatggca	gagaatgaat	atggaattgg	tgagccaaca	43500
gaaactacag	agcccgtaaa	agcctctgaa	gcaccatctc	caccagacag	ccttaacatc	43560
atggacataa	ctaagagcac	cgtcagcctg	gcattggccta	agcccaaaca	cgatggtggc	43620
agcaagatca	ctggctatgt	gattgaagcc	caaagaaaag	gctctgacca	gtggaccac	43680
atcacaaaccg	tgaaggggtt	agaatgtggt	gtgaggaatc	taactgaagg	agaggaatat	43740
accttccaag	tgatggcagt	gaacagcgcg	gggagaagtg	cccctagaga	aagcagaccc	43800
gtcattgtca	aggagcagac	aatgcttcca	gagctggatc	tccgtggcat	ctatcagaaa	43860
ctggtcattg	ccaaagctgg	tgacaacatc	aaagttgaaa	ttccagtgtc	cggtcgaccg	43920
aagcccacag	tgacatggaa	aaaaggagac	caaattctta	aacagacaca	gagagttaat	43980
tttgaaacca	cagcgacttc	aaccatttta	aatatcaatg	agtgtgtcag	aagtgatagt	44040
gggccctatc	cattaacagc	aaggaacatt	gtaggagagg	ttggtgatgt	catcaccatt	44100
caagtcctat	atatcccagg	gccacctact	ggaccaatca	aatttgatga	agtttcatct	44160
gattttgtaa	ccttctcttg	ggacccacct	gagaacgatg	gtggtgtacc	aataagcaac	44220
tatgtagtgg	aaatgcggca	gactgacagt	actacctggg	ttgagttagc	aaccaccgtt	44280

atacgtacta	cctataaaagc	cacccgcctt	actactggat	tagagtatca	gttccgtgta	44340
aaagctcaga	atagatatgg	agttggacca	ggcatcacat	cagcatggat	agttgccaac	44400
tatccattta	aggttcctgg	acctcctggg	accctcagg	taactgcagt	taccaaggat	44460
tcaatgacaa	ttagctggca	tgagccactt	tctgatggtg	gaagcccat	tttaggatat	44520
catgttgaaa	gaaaagaacg	aaatggtatt	ctctggcaga	ctgtgagcaa	agctttagta	44580
ccaggcaaca	ttttcaaatac	aagtggactt	acagatggta	ttgcttatga	gttccgggtg	44640
attgcagaaa	acatggcagg	caaaagtaag	ccaagcaagc	catcagaacc	tatgttggct	44700
ctggatccca	ttgacccacc	tggaataacca	gtacctctaa	atattacaag	acacacagta	44760
acacttaaat	gggctaagcc	tgaatatact	gggggcttta	aaattaccag	ttatatcggt	44820
gaaaagagag	accttcctaa	tggaacgggtg	ctgaaggcca	acttcagcaa	cattttggag	44880
aatgaattta	cagtcagtgg	cctaacagaa	gatgctgcat	atgaattccg	tgtgatcgcc	44940
aaaaatgctg	caggtgccat	cagtccacca	tctgagccat	ctgatgctat	cacttgcagg	45000
gatgatgttg	aggcaccaaa	gataaagggtg	gatgtttaa	ttaaggacac	ggttatatta	45060
aaagcaggtg	aagcattcag	actggaagct	gatgtttcag	gccgccacc	tccaacaatg	45120
gaatggagca	aagatggaaa	agagctggaa	ggcacagcaa	agttagaaat	aaaaattgca	45180
gattttctta	ctaactctgt	aaacaaagat	tcaacaagaa	gggatatgtg	tgcctatacc	45240
cttacagcga	ctaactcctg	tggttttgct	aaacacattt	tcaatgtcaa	agttcctgac	45300
agaccaggcc	cacctgaagg	acctttggct	gtaactgaag	tgacatcaga	aaagtgtgta	45360
ctatcatggt	tccctccact	ggatgatgga	ggtgccaaaa	ttgatcatta	catagtacag	45420
aaacgtgaaa	ccagcagatt	ggcatggaca	aatgtagcct	cagaagtcca	agtaacaaag	45480
ctaaaggtca	ctaaactctt	gaaaggcaat	gaatacatat	tccgtgtcat	ggctgtaaat	45540
aaatatggag	tgggagagcc	actggaatca	gagcctgtgc	ttgcagtga	tccttatgga	45600
ccccctgac	cgccccaaaa	ccctgaagtg	acaactatta	ctaaagattc	gatggttgtc	45660
tgtgggggac	atcctgatcc	tgatggtgga	agtgaatat	tcaattatat	tgtggaacgg	45720
cgtgataaag	ctggccaacg	ctggattaaa	tgcaacaaaa	aaactcttac	tgatttaaga	45780
tataaagtgt	ctggactgac	agaaggacat	gaatatgagt	tcaggattat	ggctgaaaa	45840
gctgctggaa	ttagtgcacc	aagtcctacc	agtccatttt	acaaggcttg	tgacactgtg	45900
tttaaaccctg	gaccaccagg	taaccacagt	gttctggata	caagcagatc	atccatttca	45960
atcgcttgga	ataaacctat	ctatgatggt	ggttcagaaa	tcactgggta	tatggttgag	46020
attgccctgc	cagagggaaga	tgaatggcag	attgtcactc	caccagcagg	actcaaggca	46080
acttcgtata	ctatcactgg	cctcacagag	aatcaggaat	ataagatccg	catctatgcc	46140
atgaattccg	aaggacttgg	ggaacctgcc	cttgttcctg	gaactccaaa	ggctgaagac	46200
agaatgctgc	ctccagaaa	tgaactggat	gctgacctgc	gcaaagtgtg	tactataagg	46260
gcctgctgca	ccctgagact	ttttgttccc	atcaaaggaa	ggcctgacct	tgaggtgaag	46320
tgggccccggg	accatggaga	atcttttagat	aaagctagca	tcgaatccgc	aagctcttac	46380
acctgctta	ttgttgga	tgtaaacaga	tttgacagt	gcaaataat	actaactgta	46440
gaaaatagtt	caggcagcaa	gtctgcattt	gtcaatgtta	gagttctcga	tacaccaggc	46500
ccccacagg	atctgaagg	aaaagagggtc	actaagacat	ctgtcacact	cacatgggac	46560
ccacctctcc	ttgatggagg	ttcaaaaatc	agaactata	ttgttgaaaa	gcgggaatca	46620
acaagaaaag	catattcaac	tggtgcaaca	aactgccaca	agacttcctg	gaaggtagac	46680
cagcttcaag	aaggctgtag	ctactatttc	agggttctcg	cagaaaatga	atatggcatt	46740
gggtgcctg	ctgaaacctg	agaatctgtg	aacgcacctc	tcctccagga	tcctccagga	46800
aaaataactt	tgatggatgt	cacaagaaat	agtgtgtcac	tctcttggga	gaaaccagag	46860
catgatggag	gcagccgaat	tctaggctac	attgtggaga	tgacagacca	aggcagtgc	46920
aaatgggcca	cgtgtgccac	agtcaagggtc	actgaagcca	ctatcactgg	attaattcag	46980
ggtgaagaat	actctttccg	tgtttcagct	cagaatgaaa	agggcatcag	tgatccatga	47040
caactgagtg	tgccagtgat	cgccaaagat	cttgtcattc	caccagcctt	caaactcctg	47100
ttcaatactt	tactgtact	ggcaggtgaa	gacctaaaa	ttgatgttcc	attcattggc	47160
cgccctaccc	cagctgtaac	ctggcataaa	gataatgtac	cactgaagca	gacaactaga	47220
gtaaattgcag	agagcacaga	aaataattca	ctactgacaa	taaaggacgc	ctgccagaga	47280
gatgttggcc	attatgtggt	taaactgact	aactcagctg	gtgaagctat	tgaaaccctt	47340
aatgttatcg	ttcttgacaa	accagggcct	ccaactggac	cagttaaaa	ggatgaagt	47400
acagctgata	gtattactct	ttcctggggc	ccaccaagt	atgatggcgg	aagttctatc	47460
aataattaca	ttgttgagaa	acgggacact	tccacaacca	cctggcaaat	tgtatcagct	47520
acagttgcaa	ggacaacaat	aaaggcctgc	agactgaaga	ctggatgtga	atatcagttt	47580
agaattgcag	ctgaaaacag	atatgggaag	agtacctacc	tcaattcaga	gcctactgta	47640
gccaatatc	cattcaaagt	tcctggtcct	cctggcactc	cagttgtcac	actgtcctcc	47700
agggacagca	tggaaagtaca	atgggaatgag	ccaatcagtg	atggaggaag	tagagtcatt	47760
ggctatcatc	tagaacgcaa	ggaaagaaat	agcatcctct	gggttaagtt	gaataaaaca	47820

cctattcctc	aaaccaagtt	taagacaact	ggccttgaag	aaggtggtga	atatgaattt	47880
agagtctctg	cagagaacat	cgtgggcatt	ggcaagccga	gtaaagtatc	agaatgttat	47940
gtggctcgtg	acccatgtga	tccaccagga	cggccagagg	caatcattgt	cacaaggaat	48000
tctgtgactc	ttcagtggaa	gaaacccacc	tatgacggtg	gaagcaagat	cactggttat	48060
attgttgaga	agaaagaatt	acctgagggc	cgttggtatga	aagccagttt	tacaaatatt	48120
attgacactc	attttgaagt	aactggccta	gttgaagatc	acagatatga	gttccggggt	48180
atagcccgaa	atgccgcagg	agtgtttagt	gagccttcag	aaagcacagg	agcaataaca	48240
gctagagatg	aggtagatcc	accacgaata	agtatggatc	caaaatacaa	agacacaatc	48300
gtggttcattg	ctgggtgaatc	attcaagggt	gatgcagata	tttatggcaa	accaatacca	48360
accattcagt	ggataaaagg	tgatcaggag	ctttcaaaca	cagctcgatt	agaaataaag	48420
agcaccgact	ttgccaccag	tctcagtgtg	aaagatgcag	tacgtgtcga	cagtggaaat	48480
tacatactga	aggccaaaaa	tgttgcagga	gaaagatcag	ttactgtgaa	tgtcaagggt	48540
cttgacagac	cagggccacc	tgaaggacct	gttggttatct	caggagttac	agcagaaaaa	48600
tgcacactag	cttggaacc	cccacttcag	gatggtggga	gtgacatcat	aaattatatt	48660
gtggaagga	gagaaaccag	ccgcttagtt	tggaactgtg	ttgatgccaa	tgtgcagact	48720
ctcagctgca	aggttactaa	gcttcttgaa	ggcaatgaat	atactttccg	tataatggca	48780
gtaaacaaat	atgggtgttg	tgaacctctt	gaatctgagc	cagtagttgc	caagaatcca	48840
ttttagtagt	cagatgcacc	aaaagctcca	gaagtcacaa	cagtgcacaa	ggactcaatg	48900
attgttgtat	gggaaagacc	agcatctgat	ggtggtagtg	aaattcttgg	atatgttctt	48960
gagaaacggg	ataaagaagg	cattagatgg	acaagatgcc	ataagcgtct	gattggagag	49020
ttgcgcctga	gagtaactgg	actcatagaa	aatcacgatt	atgagttcag	agtttctgct	49080
gagaatgctg	ctggacttag	tgaaccaagc	cctccttctg	cttaccaaaa	ggcttgtgat	49140
cctatttata	aaccaggacc	cccaaacaac	cccaaagtca	tagacataac	cagatcttca	49200
gtattccttt	cttggagcaa	accaatatat	gatggtggct	gtgaaattca	aggatacatt	49260
gttgaaaaat	gtgatgtgaa	tggttggtgaa	tggacaatgt	gcactccacc	aacaggaaat	49320
aataaaacaa	acatagaagt	agagaagctg	ttggaaaagc	atgaatacaa	cttccgtatc	49380
tgtgctatta	ataaagctgg	agttggagaa	catgctgacg	tccctggacc	tattatagtt	49440
gaagaaaaat	tagaagcacc	agacattgat	cttgacctag	aactaaggaa	aatcataaat	49500
ataagggcag	gtggctcctt	aagggtatct	gttcctataa	aaggctcgcc	tacaccagaa	49560
gttaaatggg	gaaaggtgga	tggtgaaatc	cgagatgcag	ctataattga	tgtcactagc	49620
agtttcacct	ctcttgttct	tgacaatgtc	aaccgatatg	atagtggaaa	atatacgctt	49680
acattagaaa	acagcagtgg	aacaaagtct	gcctttgtta	ctgtgagagt	tctggacacg	49740
ccaagtccac	ctgttaacct	gaaagtcaca	gaaatccaca	aagactcagt	atcaattaca	49800
tgggaacctc	ctttgttgga	tgggggatcc	aaaataaaaa	attacattgt	tgagaaacgt	49860
gaagccacaa	gaaaatcata	tgctgctgtt	gtaactaact	gccataagaa	ttcttggaaa	49920
atcgatcagc	tccaagaagg	ttgcagttat	tacttttagag	tcacagctga	gaatgagtat	49980
ggtattggcc	ttcctgcccc	gactgctgat	ccaattaagg	ttgcagaagt	gccacaacct	50040
cctggaaaaa	taactgtgga	tgatgtcacc	agaaacagtg	tctctctgag	ttggacaaaa	50100
cctgaacatg	atgggtggcag	taaaatcatt	cagtatatatt	tggaaatgca	agctaaacac	50160
agtgagaaat	ggtcagagtg	tgctcgagta	aagtctcttc	aggcagtaat	taccaacctt	50220
actcaagggg	aagaatatct	ttttagagtt	gttgctgtaa	atgaaaaggg	gagaagtgat	50280
cctcaggtccc	ttgcagttcc	aatagttgcc	aaagatctgg	taattgagcc	agatgtaaaa	50340
cctgcattca	gtagttacag	tgtacagggt	ggccaagatt	tgaaaataga	agtgccaatt	50400
tctggacgtc	ctaagccaac	cattacctgg	actaaagatg	gtctccact	gaagcagacc	50460
acaagaatca	atggtaccga	ttcactggat	ctcaccacac	tcagtattaa	agaaactcat	50520
aaggatgatg	gtggacaata	tggaatcaca	gttgccaatg	ttgttggtca	gaagacagca	50580
tccatcgaaa	ttgtaactct	agataaacct	gatcctccaa	aaggacctgt	taaatttgat	50640
gacgtcagtg	ctgaaagtat	tacattatct	tggaaccctc	cattatatac	agggggctgc	50700
caaatcacca	actacattgt	tcagaaaaga	gatacaacca	ccacagtatg	ggatgttgtt	50760
tctgctactg	ttgctagaac	tacactcaaa	gtgaccaaac	tgaaaactgg	tacagaatac	50820
caatttagaa	tatttgccga	aaacagatat	ggacaaagct	ttgccttaga	gtctgatcca	50880
attgtagctc	aatatcccta	caaagaacca	ggccctccag	gtacaccatt	tgccacagcc	50940
atttccaaag	actccatggg	catacagtgg	catgaaccag	tcaacaatgg	tggaagcccc	51000
gtcataggtt	accacctgga	gagaaaagaa	agaaacagta	ttttgtggac	aaaggtcaac	51060
aaaactatta	ttcatgacac	ccaattcaaa	gcacagaatc	ttgaagaagg	cattgaaat	51120
gaattcagag	tgtatgctga	aaatattgtt	ggtgtaggca	aagcaagcaa	gaattctgaa	51180
tgctatgtag	ccagagatcc	ctgtgaccca	ccaggaaccc	cagaaccaat	aatgggttaa	51240
agaaatgaaa	tcactttaca	gtggaccaaa	cctgtgtatg	atggtggaag	tatgattaca	51300
ggctacattg	tagagaaaacg	tgatttgcct	gatggtcggt	ggatgaaagc	tagctttaca	51360

aatgtcattg	aaactcaatt	tactgtgtca	ggtcttactg	aagatcaaag	atatgaattc	51420
agagtcattg	caaagaatgc	agctggtgca	ataagtaaag	cctctgacag	tactggacca	51480
ataactgcc	aggatgaggt	tgaactccca	agaatttcaa	tggatccaaa	attcagagac	51540
acaattgtgg	taaatgctgg	agaaacattc	agacttgagg	ctgatgtcca	tggaaagccc	51600
ctacctacca	ttgagtgggt	aagaggagat	aaggaaattg	aagaatctgc	tagatgtgaa	51660
ataaagaaca	cagatttcaa	ggctttactt	attgtaaaag	atgcaattag	aattgatggt	51720
gggcagtata	ttttaagagc	ttccaatggt	gcaggttcta	agtcattccc	agtaaatgta	51780
aaagtattag	atagaccagg	acctccagaa	gggccagtcc	aggttactgg	agtcacttct	51840
gaaaaatgct	ctttaacatg	gtctccacca	cttcaagatg	gtggcagtga	catttctcac	51900
tatgttggtg	aaaagcgaga	aaccagtcga	cttgccctgga	ctggttggtg	ttcagaagtt	51960
gtgaccaatt	ctctgaaagt	taccaaactc	ttagaaggta	atgaatatgt	tttccgtata	52020
atggctgtca	acaaatatgg	tgttgagag	cctttggaat	ctgcaccagt	actaatgaaa	52080
aatccatttg	tgcttctctg	accaccaaaa	agcttggaag	tcacaaatat	tgccaaagac	52140
tccatgaccg	tctgttgga	ccgtccagat	agtgtgggtg	gaagtgagat	tattggttac	52200
attgtagaga	aaagagacag	aagtggcatt	cgatggataa	aatgtaataa	acgccgcatt	52260
acagatttgc	gtctaagagt	gacaggatta	acagaagatc	atgagtatga	attcagggtc	52320
tctgcagaaa	atgctgtctg	agttggggaa	ccaaagtccag	ctacagttta	ttataaagcc	52380
tgtgatccctg	tggtcaaac	tggtccacct	accaatgcac	acattgtaga	caccactaaa	52440
aattcaatca	cacttgctctg	gggtaaaacc	atctatgatg	gcggcagtga	gatcttggtg	52500
tatgtagtag	aaatctgtaa	agcagatgaa	gaagaatggc	aaatagttac	tccacagact	52560
ggcctgagag	tcactcgatt	tgaattttca	aaactcactg	aacaccaaga	gtataaaata	52620
cgagtctgtg	ccctcaacaa	agttgggtta	ggtgaggcta	catcagttcc	tggtactgtg	52680
aaaccagaag	ataaacttga	agcacctgaa	cttgaccttg	actccgaatt	aagaaaagga	52740
attgttgtaa	gagctggtgg	atctgccaga	attcacattc	cattcaaagg	tcgtccaatg	52800
cctgagatca	cttggtctcg	agaggaaggt	gaattcacag	ataaggtcca	aattgaaaag	52860
ggagtaaaact	ataccaact	atcaatagat	aactgtgata	gaaatgatgc	tggaaaatac	52920
attcttaagt	tggaaaacag	cagtggatca	aagtctgctt	ttgtaactgt	gaaagtctct	52980
gacactccag	gaccaccaca	gaatttggca	gtcaaagaag	tgagaaaaga	ttctgccttc	53040
ctggtatggg	agccaccat	cattgatgga	ggggcaaagg	tcaagaacta	tgtgattgac	53100
aaacgtgagt	caaccagaaa	agcgtatgct	aatgtgagta	gtaaatgcag	caaaacaagt	53160
tttaaagtgg	aaaaccttac	agaaggagcc	atattattact	tcagagtcat	ggctgaaaat	53220
gaatttggag	ttggtgttcc	agtggaaaact	gttgatgccg	tgaagctgc	tgaacctcct	53280
tcccaccag	gaaaggttac	actcactgat	gtgtcccaga	ccagtgcac	acttatgttg	53340
gaaaaacctg	aacatgatg	cggtagcaga	gtcctggggg	acgttggtga	aatgcagccc	53400
aaaggaactg	aaaaatggag	cattgtggct	gaatccaaag	tctgtaatgc	agttgttact	53460
ggtttgagtt	ctggacaaga	atatcagttc	cgtgtcaagg	cttataatga	gaaaggaaaa	53520
agcgatccaa	gagtgttggg	tgttcctgtc	atagccaagg	acttgactat	acagcctagt	53580
ttaaagttac	catttaacac	atatagtatc	caagctggag	aagatcttaa	aatagaaatt	53640
ccagttatag	gccgaccaag	acctaacatt	tcttgggtca	aagatggtga	gcctcttaaa	53700
cagacaacaa	gagtaaacgt	tgaagaaaca	gctacctcaa	ctgttttgca	cattaaagaa	53760
ggtaacaaag	atgacttttg	aaaatacacc	gtaacggcaa	caaatagtgc	aggcacagca	53820
acagaaaaat	tcagtgttat	cgttttagaa	aaagcctggac	ctccagttgg	ccagttcggg	53880
tttgatgaag	ttagtgcaga	ctttgtagtc	atatcttggg	aacctccagc	ctatactggt	53940
ggctgccaaa	taagcaacta	cattgtagag	aagcgagata	caaccaccac	cacttggcac	54000
atggtatcag	caacagttgc	aagaacaaca	attaaaataa	ccaaactgaa	aacaggcacg	54060
gagtaccagt	ttagaatttt	tgctgaaaac	aggtatggaa	aaagtgcacc	actggattct	54120
aaggcagtta	ttgtacaata	tccattttaa	gaacctggac	cacctggaac	tccttttgtg	54180
acatcaatct	caaaagatca	gatgcttgtg	caatggcatg	agccagtga	tgatggaggc	54240
acaaaaatta	ttggctacca	tcttgaacag	aaagaaaaga	acagtatttt	atgggtcaag	54300
ttaaataaga	ccccatttca	ggacaccaa	ttcaaaaaca	ctgggcttga	tgagggcctt	54360
gagtatgagt	tcaaagtttc	tgctgaaaat	attgttggca	ttggcaagcc	tagcaaaagt	54420
tcagaatgct	ttgttgctcg	tgatccatgt	gacctccctg	gtcgccctga	agccattggt	54480
attacaagaa	acaatgtcac	actgaaatgg	aagaaacctg	cctatgatgg	tggtagcaaa	54540
ataacaggtt	atattgtaga	aaagaaagat	ctacctgatg	gccgctggat	gaaagccagc	54600
tttaccaacg	tattagaaac	tgaatttaca	gtgagtggac	ttgtagaaga	ccaaagatat	54660
gaatttagag	taattgcaag	aaatgcagct	ggaaacttta	gtgaaccatc	tgatagtagt	54720
ggtgccatta	ctgcaagaga	tgaatttgat	gcaccaaatt	cctctctgga	tccaaaatat	54780
aaagatgtca	tcgttgttca	tgcaggagag	acttttgttc	ttgaagccga	catccgtggc	54840
aaacctatac	ctgatgttgt	ttggtcaaaa	gatggaaaag	aacttgaaga	aacagctgct	54900

agaatggaaa	ttaaattctac	tattcagaaa	acaactcttg	ttgtcaaaga	ctgtatacgg	54960
actgatggag	gacaatatat	tctgaaactc	agcaatgttg	gtggtacaaa	gtctataccc	55020
atcactgtaa	aggtacttga	caggccaggg	tctcctgaag	ggcctctgaa	agttactgga	55080
gttactgcmg	aaaaatgtta	cctggcatgg	aaccacactt	tgcaagatgg	tggtgctaata	55140
atttcacatt	acatcattga	aaagagggag	acaagccgac	tctcttgga	ccagggtttca	55200
actgaggtac	aggcccttaa	ctacaaagtt	actaaacttc	ttccttgtaa	tgagtacatt	55260
ttccgtgtca	tggtgtgtaa	taaatatgga	attggagagc	ccttggaatc	tgggcctgtt	55320
acggcctgta	atccttataa	gccaccaggt	cctccctcaa	cacctgaagt	ctcagcaatc	55380
accaaagatt	ctatggtagt	aacatgggca	cgcccagtag	acgacggagg	taccgaaatt	55440
gagggctaca	ttcttgaaaa	acgagataag	gaaggcgtaa	gatggacca	gtgcaacaag	55500
aaaacattaa	cggatctgcm	gctcagggta	actggtctta	ccgaaggcca	ttcctatgaa	55560
ttcagagttg	ctgctgaaaa	tgcmgtggt	gtgggagaa	ctagtgaagc	atctgttttc	55620
taccgtgcmg	gtgatgcctt	gtatccacca	ggcccccaa	gcaatccaaa	agtgaagcag	55680
acttccagat	cttctgtctc	cctggcatgg	agtaagccaa	tttatgatgg	tgggcgacct	55740
gttaaaggct	atgtttaga	ggtcaaagaa	gctgctgcmg	atgaatggac	aacctgcact	55800
ccaccaacag	gattacaagg	aaagcagttc	acagtgaaca	agcttaaaga	aaacactgaa	55860
tataacttcc	gtatttgtgc	catcaattct	gaagggtgag	gtgaacctgc	aactctacct	55920
ggctcagtg	ttgctcagga	gaggatagag	ccaccagaaa	tagaactcga	tgctgatctc	55980
agaaagggtg	tcgttctgcm	tgcaagtgtc	actttacgct	tatttgtcac	tatcaaagg	56040
cgaccagaac	ccgaagttaa	atgggaaaag	gcagaaggca	ttctcactga	cagggctcag	56100
atagaggtga	ccagctcatt	tacaatgttg	gtgattgata	atgttaccag	atttgacagt	56160
ggtcggtata	atctgacatt	agaaaataat	agtggctcca	aaacagcttt	tgtaaacgtc	56220
agagttcttg	actcaccaag	tgccctgtg	aatttgacca	taagagaagt	gaagaaagac	56280
tcagtgaag	tgctcctggg	accaccactt	attgatgggt	gagctaagat	tacaaactac	56340
attgtcgaaa	aacgagaaa	tacaagaaa	gcctatgcta	ccattacaaa	taattgcact	56400
aaaactactt	tcagaattga	aaatctacaa	gaaggatgtt	cttactactt	ccgagttctg	56460
gcttccaatg	aatatgggat	tggtttgcca	gctgaaacaa	cagaacctgt	taaagtgtct	56520
gaaccacccc	tcccacctgg	aagagtaact	cttgtttagt	tgacctgtaa	tacagctaca	56580
attaagtggg	agaaaccaga	aagtgtggt	ggcagcaaaa	ttactgggtt	tgtggttgaa	56640
atgcagacta	aagggagtg	aaagtggagc	acctgcacac	aagttaagac	tctagaagca	56700
actatatctg	gcttaactgc	aggagaagag	tatgtcttca	gggtagctgc	agttaacgaa	56760
aagggaagaa	gtgatccaag	acaacttgga	gtgccagtaa	ttgcaaggga	tattgaaata	56820
aagccttcag	ttgagcttcc	ttccatact	ttcaatgtaa	aggctagaga	acaacttaag	56880
attgatgtgc	cattcaaagg	aagacctcaa	gctactgtga	actggagaaa	agatggctag	56940
actcttaaa	agacaactag	agtcaatgtt	tcttcttcaa	agactgtaac	atcactatct	57000
attaaggaag	cttcaaagg	agatgttgg	acttatgaat	tatgtgtttc	aaacagtgtc	57060
ggatccata	cagttcctat	tactataatt	gtccttgaca	gaccaggacc	tccaggtcct	57120
atagctattg	atgaggttag	ttgtgacagc	ataaccattt	cttgggaatc	tccagaatat	57180
gatggtggct	gccaaattag	caattacatt	gttgaaaaga	aagaaaccac	ctctacaaca	57240
tgccacatag	tttcacaagc	agttgcaaga	acatccatta	aaatagtctg	cctgacaaca	57300
ggaagtga	atcagttccg	tggttgtgca	gaaaaccgct	atggaaagag	ctcctacagt	57360
gaatcttcag	ctgttgttgc	agagtatcca	ttcagtcctc	caggtcctcc	tggtactcct	57420
aaagtgtgtc	atgccacaaa	atctaccatg	cttghtaacct	ggcaagtgcc	agttaatgat	57480
ggaggaagtc	gagtaattgg	ctatcatctt	gagtataaag	aaagaagcag	cattcttttg	57540
tcaaaagcaa	ataaaatcct	cattgctgat	actcaagtga	aagtctccgg	ccttgatgaa	57600
ggactgatgt	atgagtatcg	tgtatatgct	gaaaatattg	ctggaattgg	taaatgcagt	57660
aaatcttgtg	aaccagtcct	tgcaagagat	ccttgtgacc	ctcctggaca	acctgaagtc	57720
acaaatatca	caagaaaatc	agtgctactt	aaatggtcta	aaccacatta	tgatggtgga	57780
gctaagatca	caggatacat	tggtgaacgc	agagaactac	cagatggccg	gtggctaaag	57840
tgcaattata	ctaataata	agaaacatac	tttgaagtaa	ctgaacttac	tgaagatcag	57900
cgttatgaat	tccgggtttt	tgcaagggaat	gctgctgact	cagttagtga	gccatctgaa	57960
tccactgggc	ctattatagt	taaagatgat	gttgagcctc	caagagttat	gatggatgtc	58020
aagtcccgag	acgttattgt	tgtcaaagct	ggagaggtcc	ttagataaaa	tgcmgacatt	58080
gcagggcgac	ctctgccagt	aatttcctgg	gccaaagatg	gtatagaaat	tgaagaaaga	58140
gcaagaacag	aaatcatctc	aacagacaat	catactttgt	taacagttaa	agactgtata	58200
agacgagaca	ctgggcaata	tgtactaaca	ctgaagaatg	ttgccggcac	tcggtctgtg	58260
gccgttaatt	gcaaagtact	tgataagcct	ggtccaccag	caggaccact	tgaaataaat	58320
ggctcactg	ctgagaaatg	ctctctttcc	tggggacgtc	cccaagaaga	tggtggtgca	58380
gatatcgact	attaccatcg	taaaaaacgt	gaaacaagcc	accttgcatt	gacaatatgt	58440

gaaggagagt	tacagatgac	atcctgtaaa	gtaaccaagt	tactcaaagg	caatgaatat	58500
atatttagag	taactggtgt	taataaatat	ggtgttggtg	agcccctaga	gagtgtagct	58560
ataaaggcac	tagatccatt	tacagttcca	agtccacca	cgtctttgga	aattacttct	58620
gtgaccaaag	aatctatgac	actttgctgg	tcaagacccg	agagtgatgg	aggtagtga	58680
atatctggat	atataattga	aaggcgagag	aaaaatagcc	taagatgggt	gcgtgtaaac	58740
aaaaaaccag	tttatgatct	aagagtgaag	tcaacaggac	ttcgggaagg	atgtgaatat	58800
gaatatcgtg	tttatgcaga	aaatgctgct	ggcctaagtc	ttccaagtga	aacctctccc	58860
ttaattaggg	cagaagatcc	agtgttccta	ccatctcctc	catccaaacc	caaaattgtg	58920
gactcaggca	agacaactat	aactattgcc	tgggttaagc	cgctgtttga	tgggtggggc	58980
ccgataactg	gatatactgt	agaatacaaa	aaatctgatg	acactgactg	gaaaacttcc	59040
attcagagct	tacgagggac	agaatatata	ataagcggac	taacaacagg	agctgaatat	59100
gttttcagag	taaaatctgt	caataagggt	ggtgctagt	accccagtga	tagctctgac	59160
cctcagatag	caaaggaaag	agaagaagaa	cctttatttg	atattgacag	tgaaatgagg	59220
aagaccttga	ttgtcaaggc	tgggtgcctca	tttaccatga	ctgtgccttt	ccgaggaaga	59280
ccagtaccca	atgtcttgtg	gagtaagcca	gacactgacc	tccgtactag	agcttatgtt	59340
gataccacag	actctcgtac	atcactgacc	attgaaaatg	ccaacagaaa	tgactctgga	59400
aagtacacat	taacaattca	gaatgttttg	agtgtgcttt	caactgacctt	agttgtcaaa	59460
gttttagata	ccccagggtc	tccaaccaac	attactgtgc	aagatgtaac	caaagagtct	59520
gcagtgttat	cctgggatgt	tcctgaaaac	gatgggtggag	caccagtga	gaattaccac	59580
atagaaaaac	gtgaggccag	caagaaagca	tgggtctctg	tgaccaacaa	ctgtaaccgc	59640
ctctcctaca	aagttaccaa	tttacaagaa	ggagctatct	attacttcag	agtctctgga	59700
gaaaatgagt	ttggtgttgg	tataccagct	gaaacaaagg	aaggagttaa	aataacagaa	59760
aaaccaagcc	cacctgaaaa	acttgagta	acaagtatat	ccaaagacag	tgtttccctg	59820
acctggctga	agcctgaaca	tgatggcgga	agcagaattg	tacactatgt	cgttgaagca	59880
ctagaaaaag	gacagaaaaa	ctgggttaaa	tgtgcagtgg	caaagtcaac	ccatcacgtt	59940
gtttccggtc	tgagagagaa	ttctgaatac	ttttccgag	tgtttgctga	aaatcaagct	60000
ggcctgagtg	acccgagaga	gcttctgctt	cctgttctta	ttaaggagca	actagaacca	60060
cctgaaattg	atatgaagaa	tttcccaagt	cacactgtat	atgttagagc	tggttcaaac	60120
cttaaagttg	acattccaat	ctctgaaaaa	ccacttccca	aagtgcctt	atcaagagat	60180
ggtgtccccc	ttaaggcaac	catgagattt	aataccgaaa	ttactgctga	gaacctgacc	60240
atcaatctca	aagaaagtgt	tacagctgac	gctgggagat	atgaaatcac	tgctgccaac	60300
tccagtggta	caaccaaaagc	tttcattaac	attgttgtgc	tagacaggcc	tggctcctca	60360
actggccctg	tggttattag	tgatataact	gaagaaagtg	tgactctcaa	atgggagcca	60420
cctaagtatg	acggtggaag	tcaagttacc	aactacattc	tactcaaaag	agaaacaagt	60480
actgcagtgt	ggactgaagt	gtctgcaaca	gttgcaagaa	ccatgatgaa	agtcatgaaa	60540
ctgaccacag	gagaagaata	ccaattccgc	atcaaggcag	aaaaccgctt	tggcatcagt	60600
gatcatatag	attcagcttg	tgtgactgtc	aaactacat	acacaacacc	tggaccacca	60660
tctacaccat	gggtcactaa	tgttactcga	gaaagcatca	ctgtgggctg	gcatgaacca	60720
gtgtcaaatg	gaggcagtg	agtcgtagtc	tatcacctgg	aatgaaaga	cagaaacagt	60780
attttatggc	aaaaagccaa	caaactggtc	atccgcacaa	ctcacttcaa	agtcacaaca	60840
atcagtgtct	gacttattta	tgaattcagg	gtgtatgcag	aaaatgtgc	tggagtggga	60900
aaacctagcc	atccttctga	accagtcttg	gcaattgatg	cttgtgaacc	cccaagaaat	60960
gttcgtatca	ctgatatttc	aaagaactct	gtcagccttt	catggcaaca	accagctttc	61020
gatggaggta	gcaagattac	aggctacatt	gttgagagac	gtgaccttcc	agatggcaga	61080
tggaccaagg	ccagcttcac	caatgttact	gaaactcaat	tcaccatctc	tggcttgact	61140
cagaattccc	agtatgaatt	ccgtgtcttt	gctaggaatg	ctggttggtc	cattagcaat	61200
ccatctgagg	ttgtagggcc	cattacttgc	atcgattctt	atggttggtc	tgtaattgat	61260
ttgcctctag	aatatacaga	agttgtcaaa	tacagagcag	gtacatctgt	gaagctcaga	61320
gctggcattt	ctggcaaacc	tgcgcctact	attgagtggg	ataaagatga	taaagaatta	61380
caaaccaatg	cactggtgtg	tgttgaaaat	accacggacc	tcgcatctat	actcatcaaa	61440
gatgccgata	gccttaatat	tggatgctat	gaattaaaac	taagggaatgc	catggcgtca	61500
gcctcagcca	ccatcagagt	acagatcctt	gacaaaaccag	gcccacctgg	tggaccaatt	61560
gaatttaaga	ctgtaactgc	tgagaagatc	acccttctct	ggcggcctcc	agctgatgat	61620
ggtggtgcaa	aaatcactca	ctacattgtg	gaaaagcgtg	agacaagccg	cgttgtgtgg	61680
tctatggtgt	ctgaacattt	ggaagagtgc	atcattacaa	ccaccaaaaat	tatcaaagga	61740
aatgaataca	tcttccgggt	ccgagccgtg	aacaaatatg	gaattggcga	gccactggaa	61800
tctgattccg	ttgtagccaa	gaacgcattt	gttacacctg	ggccaccagg	cataccagaa	61860
gtgacaaaga	ttaccaagaa	ttcgatgact	gttgtatgga	gcaggccaat	tgcatatggc	61920
ggtagtata	taagtggcta	tttcttgaa	aaacgagaca	agaagagcct	aggatggttt	61980

aaagtactaa	aagagactat	ccgtgacacc	agacaaaaag	taacaggact	cacagaaaac	62040
agtgactatc	aatacagagt	ttgtgctgta	aacgctgctg	gacaggggcc	atcttctgaa	62100
ccatctgaat	tctacaaagc	tgctgatcct	attgatcctc	caggtccacc	tgctaagata	62160
agaatcgag	attcaaccaa	gtcatccatc	acccttggtc	ggagtaagcc	tgtctatgat	62220
gggggcagtg	ctgttactgg	gtatgttgct	gagataagac	aaggagagga	agaggaatgg	62280
actactgtct	ctaccaaagg	agaggtcaga	actacagaat	atgtggatc	caacctgaaa	62340
cctggagtc	attactactt	ccgggtatct	gctgtaaact	gtgctggaca	aggagaacct	62400
atagaaatga	atgaacctgt	acaagctaaa	gatatacttg	aggcaccaga	gattgacctg	62460
gatgtggctc	tcagaacttc	tggtattgcc	aaagctgggtg	aagatgtaca	agtgttgatt	62520
ccctttaaag	gcagacctcc	acctactgtc	acatggagaa	aagatgagaa	gaatcttggc	62580
agtgatgcca	gatacagcat	tgaaaacact	gattcatcct	cattactcac	cattcctcaa	62640
gttactcgca	atgatacagg	aaaatatatt	ctcacaatag	aaaatggagt	tggtgaacct	62700
aagtcttcaa	ctgtgagtg	taaagtgtt	gacacaccag	ctgcctgcca	gaaactacag	62760
gttaaacatg	tttctcgagg	cacagtcact	ttgctctggg	atcctcctct	cattgatgga	62820
ggatctccaa	taattaatta	tgctattgaa	aagagagatg	ccaccaagag	aacatggctc	62880
gtcgtgtcac	acaaatgttc	tagcacatcc	ttcaagctaa	tagatttgtc	ggagaagact	62940
ccattcttct	tcagagttct	tcagaaaaat	gaaattggaa	ttggggaacc	ctgtgaaact	63000
acagagccag	tgaaggctgc	tgaagtacca	gtcctatac	gtgatctctc	aatgaaagac	63060
tcaacaaaga	catctgtcat	cctcagctgg	accaaacctg	actttgatgg	tggtagcgtc	63120
atcacagaat	atgttgtaga	aaggaaaggt	aaaggtgaac	agacgtggtc	ccacgctggc	63180
ataagtaaga	catgtgaaat	tgaggttagc	caacttaagg	agcagtcagt	cctggagttc	63240
agagtgtttg	ccaaaaatga	gaaaggactg	agtgatcctg	tcactattgg	gccaattaca	63300
gtgaaagaac	ttattattac	acctgaagtt	gacctgtcag	atatccctgg	ggcacaagtc	63360
actgtgagaa	ttgggcacaa	tgtgcacctt	gaattacctt	ataagggaaa	acccaaacca	63420
tccatcagtt	ggctgaaaga	tggttgcca	ctgaaagaaa	gtgaatttgt	tcgcttcagt	63480
aaaactgaaa	acaaaattac	tttgagtatt	aagaatgcca	agaaggagca	tggaggaaaa	63540
tacactgtta	ttcttgataa	tcagtggtgt	agaattgcag	tccccattac	agtcatacacc	63600
cttggtccac	catcaaagcc	caaaggacct	attcgatttg	atgaaatcaa	ggctgatagt	63660
gtcatcctgt	catgggatgt	acctgaagat	aatggaggag	gagaaattac	ttgttacagc	63720
atcgagaagc	gggaaacttc	acaaactaac	tggaagatgg	tgtgttcaag	tgttgccaga	63780
acgactttca	aagttcctaa	tctagtcaaa	gatgctgaat	accagtttag	agtgaagaca	63840
gaaaacagat	acggagtcag	ccaaccactt	gtctcaagca	ttattgtggc	aaaacaccag	63900
ttcaggattc	ctgggtcccc	aggaaagcca	gttatataca	atgtgacttc	tgatggcatg	63960
tcactaactt	gggatgctcc	agtttatgat	ggtggttcag	aagttactgg	attccatgtt	64020
gaaaagaaag	aaagaaatag	catcctctgg	caaaaagtta	atacatcacc	aatctctgga	64080
agagaatata	gagccactgg	actggtagaa	ggtctggatt	accaattccg	tgtatatgct	64140
gaaaattctg	ctggcctaag	ctcacctagt	gacccaagca	aatttacctt	agctgtttct	64200
ccagtagacc	cacctggcac	tcctgactac	attgatgtca	cccgggaaac	catcacactt	64260
aaatggaacc	caccattgctg	tgatggaggc	agtaagattg	tgggctatag	cattgagaaa	64320
cggcaaggaa	atgaacgtcg	ggtgagatgc	aactttactg	acgtcagtga	atgtcagtag	64380
acagttacag	gagtcagctc	tggggatcgc	tatgagttca	gaataattgc	aagaaatgct	64440
gttggaaacta	taagcccgcc	ctcacagtct	tctggcatta	ttatgacaag	agatgaaaat	64500
gttccacca	tagtagagtt	tggccctgaa	tactttgatg	gtctcattat	taagtccgga	64560
gagagcctta	gaattaaagc	tttggtacaa	ggaagaccag	tgctcagagt	aacttggttc	64620
aaagatggag	tggaaatcga	aaagaggatg	aatatggaaa	taaccaacgt	acttggtacc	64680
accagcctat	ttgttagaga	tgctactcgg	gaccatcgtg	gtgtatacac	agtggaagcc	64740
aaaaatgcat	ctggttctgc	aaaagcagaa	attaaagtga	aagtacaaga	tacaccagga	64800
aaagtagttg	ggccaataag	attcaccaat	attactgggg	agaagatgac	tctgtgggtg	64860
gatgccccac	tcaatgacgg	ttgtgctccc	ataaccact	acatcattga	aaaacgggaa	64920
accagcagac	ttgcctgggc	actaattgag	gataaatgtg	aagcccaaag	ttacactgcc	64980
attaaactaa	taaacggcaa	tgaataccaa	ttcgtgtttt	ctgcagttaa	caagtttggg	65040
gttggcaggc	cacttgattc	tgatccagtg	gttgctcaaa	tacaatatac	tgttcctgat	65100
gcccttgcca	ttccagaacc	tagcaacata	acaggcaaca	gcattaccct	gacatgggca	65160
aggccagaat	cagatgggtg	cagtgaatt	caacagtata	tccttgaaa	aagagaaaag	65220
aaaagcacia	gatgggtaaa	agtgatcagc	aaacgaccaa	tctctgaaac	aagattcaaa	65280
gtcactggtc	tgacagaagg	caatgagtag	gaattccatg	tcattggctga	aaatgctgca	65340
ggagttggag	ctgcaagtg	catctcaaga	ctcatataat	gtagagagcc	cgtcaacca	65400
ccaggtcctc	ccacagtgg	caaagtaaca	gacacatcaa	agacaactgt	gagcttagaa	65460
tggtccaaac	cagtgtttga	tggtggcatg	gaaataattg	ggtatattat	tgaaatgtgt	65520

aagaccgact	taggagactg	gcacaaggtg	aatgcagagg	catgtgtgaa	aacaagatat	65580
acagtactg	atctacaagc	aggtgaagaa	tacaaattcc	gagttagtgc	tatcaatggt	65640
gctggaaaag	gcgacagctg	tgaagtgact	ggcacaatta	aagcagttga	ccggttaaca	65700
gctcctgagt	tagacataga	tgcaaaacttc	aaacagactc	atgttggttag	agctggggcc	65760
agtattcgcc	tcttcattgc	ctaccaaggt	agacctactc	ctacagctgt	gtggagcaaa	65820
ccagactcta	accttagcct	tcgggctgat	atccatacaa	cagattcctt	cagcaccctc	65880
actgtggaaa	actgcaacag	aaatgatgca	gggaaatata	cccttactgt	ggaaaacaac	65940
agtggtagta	agtcaatcac	attcacctgt	aaagtgtag	acactccagg	cccacctggc	66000
ccaattacct	tcaaagatgt	gacccgggga	tctgtacat	tgatgtggga	tgccccctct	66060
cttgacggtg	gtgcccgaat	ccatcattat	gtggtagaga	aacgagaggc	aagtcgccgt	66120
agttggcagg	ttatcagtga	aaaatgcact	cgtcagatct	tcaaggtcaa	tgacctggcc	66180
gaaggtgttc	cgtactatct	ccgtgtttct	gcagtaaagt	agtatggtgt	tggtgagccc	66240
tatgaaatgc	cagaaccaat	tgtagccacg	gaacagcctg	ctccacctag	gagacttgat	66300
gttggtgata	ctagcaaata	ctccgcagtc	ttagcttggt	ttaaacctga	ccacgatgga	66360
ggcagccgga	tcactggcta	cctgcttgaa	atgagacaaa	agggatctga	cctctgggtt	66420
gaagctgggtc	acaccaaaca	gctaactttc	acagttagagc	gtcttggtga	gaaaactgaa	66480
tatgaattcc	gtgtgaaggc	caagaatgat	gctggctata	gtgaaccacg	agaagccttc	66540
tcttctgtca	tcattaagga	gcctcaaata	gagccactg	ctgacctcac	tggaattacc	66600
aatcagctta	taacttgcaa	agcaggaagc	ccattttacca	ttgacgtacc	aatcagtggt	66660
cgtcctgccc	ccaaagtaac	atggaaactg	gaagaaatga	gacttaaaga	gacagatcga	66720
gtgagcatta	caacaacaaa	agacagaacc	acactgactg	taaaggacag	catgagaggt	66780
gactctggaa	gatacttctt	gaccctggaa	aatacagctg	gtgttaaaac	athtagcgtc	66840
acagttgtgg	tcattggaag	gccaggtcca	gtaaccggcc	ccattgaggt	ctcatctgtc	66900
tcagctgaat	cgtgtgtcct	gtcatgggga	gaacctaaag	atggaggagg	cactgaaatt	66960
actaattaca	tagttgaaaa	gcgtgaatcg	ggtaacaacg	cttggcagct	tgtcaattcc	67020
agtgtcaagc	gcactcaaat	taaagtcaact	catctcacaa	aatacatgga	atattctttc	67080
cgtgtcagtt	cagagaacag	atlttggtgtc	agcaaaccctc	tagaatcagc	accaataatt	67140
gctgaacatc	catttgtccc	accaagcgct	cctaccagac	ctgaggtcta	ccatgtgtct	67200
gccaatgcc	tgtctattcg	ttgggaagaa	ccctaccacg	atggtggcag	taaaatcatt	67260
ggctactggg	ttgagaagaa	agaacgtaat	acaattcttt	gggtgaaaga	aaacaaagt	67320
ccatgcttag	agtgcaacta	caaagtaact	ggttttagtag	aaggactgga	atatcagttc	67380
agaacttatg	cactcaatgc	tgcaggtgtt	agcaaggcca	gcgaagcttc	aagacctata	67440
atggctcaaa	atccagttga	tgcaccaggc	agaccagagg	tgacagatgt	cacaagatca	67500
acagtatcac	tgatttggtc	tgccccagcg	tatgatggag	gcagcaagg	tgtgggctac	67560
atcatagagc	gtaagccagt	cagtgaaggta	ggagatgggtc	gctggctgaa	gtgcaactac	67620
accattgtat	ctgacaattt	cttcaccgtg	actgctctca	gtgaaggaga	cacttatgag	67680
ttcgtgtgt	tagccaagaa	tgcagcaggc	gtaattagca	aagggtctga	atctacaggc	67740
cctgtcactt	gccgagatga	atacgttcca	cccaaagccg	aactggatgc	ccgattacac	67800
ggtgatctgg	ttaccatcag	agcaggttct	gatcttggtc	tggtatgctgc	agttggtggc	67860
aaacctgaac	ccaaataatt	ctggaccaaa	ggagacaagg	agctagatct	ctgtgaaaaa	67920
gtctctttgc	agtaatactg	caaacgagca	actgctgtga	tcaagttctg	tgacagaagt	67980
gacagtggaa	aatacacttt	aacagtga	aatgctcagc	ggaccaaggc	cgtgtctgtc	68040
atggtcaaa	tgcttgattc	ccctggccca	tgtggaaagc	tcaccgtcag	cagagtaaca	68100
caggagaagt	gcacttttagc	ctggagcctt	ccgcaggaag	acggaggagc	agaaatcact	68160
cactacatcg	tggaaagacg	cgagactagc	aggctcaact	gggtgattgt	tgaaggcgaa	68220
tgcccaaccc	tatcctatgt	cgttaccagg	ctcatcaaga	acaatgagta	catattccga	68280
gtgagggcag	taaacaaaata	tggccctgg	gtgcctgttg	aatcagagcc	aattgtagcc	68340
agaaactcat	tcactatttc	atcaccaccc	ggcatacctg	aagaagtgtg	gactggcaaa	68400
gagcatatca	tcattcagtg	gacaaaacct	gaatctgatg	gtggcaatga	aatcagcaac	68460
tacctagtag	acaaacgtga	gaaggagagc	ctgcgctgga	cacgtgtcaa	caaagactat	68520
gtggtgtatg	ataccaggct	gaaggtgacc	agcctgatgg	agggttgtga	ttaccagttc	68580
cgggtgaccg	cagtgaatgc	agctggtaac	agtgaagcca	gcgaacgttc	caacttcac	68640
tcatgcagag	aaccatcata	tacccttgga	ccaccttctg	ctccaagagt	tgtggatacc	68700
accaaacaca	gcattagttt	ggcatggacc	aaacccatgt	acgatgggtg	tactgacatt	68760
gtaggatatg	ttctggaaat	gcaagagaag	gacactgatc	agtggtagcc	agtgcatacc	68820
aatgccacaa	taagaaatac	tgaattcact	gtgccagacc	ttaaaatggg	ccagaaatat	68880
tccttcagag	ttgctgccgt	gaacgtgaag	ggtatgagcg	aatacagcga	atcaattgct	68940
gaaattgagc	ccgtggaaag	aatagaaata	ccagatcttg	agcttgacga	tgatctaaag	69000
aagactgtga	ccatcagggc	tggggcctcc	ttgcgcttga	tggtgtctgt	atctggaaga	69060

ccacctcctg	tcataacgtg	gagcaagcag	ggcattgacc	ttgcaagccg	ggcaattatt	69120
gacaccactg	agagctactc	attgctaata	gtggacaaa	ttaatcggtg	cgatgctgga	69180
aaatacacaa	ttgaagctga	aaaccaatct	ggcaagaaat	cagcaacagt	ccttggttaa	69240
gtctatgata	ctcctgggtc	ctgtccttca	gtgaaagtta	aggaagtatc	aagagattct	69300
gtgactataa	cttgggaaat	tcccacgatt	gatggtggag	ctccaatcaa	caattacatc	69360
gttgagaagc	gtgaagctgc	tatgagagca	ttcaaaacag	taactaccaa	atgcagcaag	69420
acactttaca	gaatttctgg	acttgtagaa	ggaaccatgc	actatttcag	agtgtctgca	69480
gaaaatattt	atggcattgg	agaaccttgt	gaaacatctg	atgcagtact	ggtctcagaa	69540
gtgccttttg	tgcttgcaaa	gctagaagtg	gtcgatgtca	ccaaatccac	tgttaccctt	69600
gcctgggaaa	aaccactcta	cgatggtggt	agccgactca	ctggatatgt	tctcgaggcc	69660
tgcaaagctg	gcacagagag	atggatgaag	gttgtcacct	taaaaccac	agtcctagag	69720
cacactgtta	cttccttaaa	tgaaggtgaa	caatacttat	ttagaataag	ggcacaaaat	69780
gagaaagggtg	tgtcagaacc	aagagagact	gtcacagccg	tgactgtaca	agacctcaga	69840
gtgttgccaa	caatcgatct	ttctacaatg	cctcagaaga	ccatccatgt	cccagctggc	69900
agaccagtag	agctggtgat	acctatttgt	ggccgtccac	ctcctgctgc	ttcctgggtc	69960
tttgctggtt	ctaaactgag	agaatcacag	cgtgtcacag	ttgaaactca	cactaaagta	70020
gctaaatttaa	ccatccgtga	aaccactatc	agagatactg	gagaatacac	acttgaattg	70080
aagaatgtta	ccggaactac	ttcagaaacc	attaaagtta	tcattcttga	caagcctggt	70140
ccaccaacag	gacctattaa	gattgatgaa	attgatgcta	catcaattac	catttcctgg	70200
gaaccacctg	aattggacgg	tgggtgctcca	ctgagtgggt	atgtggtaga	acaacgtgac	70260
gctcatcgtc	caggatggct	gcccgtttct	gaatcagtga	ctaggtccac	gtttaagtgt	70320
accagactca	ccgaaggaaa	tgagtatgtg	ttccgtgtgg	ctgcaacaaa	ccgcttcggg	70380
attggctctt	acttgcagtc	tgaggtcata	gagtgtcgca	gcagcatccg	tattcctgga	70440
ccccagaaa	cattacagat	atttgatgtt	tcccgtgatg	gcattgacact	tacttggtag	70500
ccaccagagg	atgacgggtg	ctcccaagtg	actggtatata	ttgtggagcg	caaagaagtg	70560
agagcagatg	gatgggtccg	tgtaaatata	gtacctgtga	caatgacacg	gtaccgctcc	70620
actggcctta	ctgaaggctt	agaatatgaa	caccgtgtca	cagccattaa	tgcaagaggg	70680
tctgggaaac	caagtcgtcc	ttccaaaccc	atcgttgcca	tggatccaat	tgctcctcca	70740
ggaaagccac	aaaacccaag	agttactgat	acaacaagga	catcagtctc	cctggcctgg	70800
agtgttccag	aagatgaagg	aggatctaaa	gtcacaggct	acttgattga	aatgcaaaaa	70860
gtagatcaac	atgaatggac	caagtgtaac	accactccaa	ccaagattcg	agagtatact	70920
ctaacacacc	tacctcaggg	tgcagaatac	aggttccgcg	tcctagcttg	taatgctggt	70980
ggacctgggtg	agcctgctga	ggtaccagga	acagtc aaag	tcactgaaat	gcttgaatat	71040
cctgatttatg	aacttgatga	aagataccaa	gaaggatatc	ttgtaaggca	aggtggcgtc	71100
atcagactta	ccataccaat	caaaggaaaa	ccattcccaa	tatgtaaatg	gaccaaggaa	71160
ggccaggata	ttagtaagcg	tgccatgatt	gcaacatctg	aaacacacac	tgagcttggtg	71220
atcaaagaag	cagacagggg	tgattctggc	acttatgacc	tggttctgga	aaataaatgt	71280
ggcaagaagg	ctgtctacat	caaggtcagg	gtgataggaa	gtcccaacag	tccagaaggg	71340
ccactggaat	atgatgacat	ccaagtccgc	tctgtgaggg	tcagctggag	acctcctgct	71400
gatgatgggtg	gtgctgacat	cttaggtctac	atcctcgaga	gacgagaagt	gcctaaagcc	71460
gcctgggtata	ccattgattc	cagagtccga	ggtacatctc	tggtgggtaaa	aggcctcaaa	71520
gagaatgtag	aataccattt	ccgtgtttca	gcagaaaacc	agtttggcat	aagcaaaacc	71580
ttgaaatctg	aggaaccagt	cacaccaaaa	acaccattga	atcctccaga	acctccaagc	71640
aatcctccag	aagtactcga	tgtaaccaag	agttctgtta	gcttgtcctg	gtccccggcc	71700
aaagatgatg	gtggttctag	agtcacaggc	tactacatcg	aacgcaaaga	gacatccact	71760
gacaagtggg	tcagacacaa	caagactcag	atcaccacca	caatgtacac	tgtcacaggg	71820
cttggtcccg	atgctgagta	tcagttccgc	atcatcgcac	agaatgatgt	tggcctgagt	71880
gagaccagcc	ctgcttctga	accagttggt	tgcaaagatc	catttgataa	accaagccaa	71940
ccaggagaac	ttgagattct	ttcaatatcc	aaagatagtg	tcactctaca	gtgggagaaa	72000
cctgaatgtg	atgggtgtaa	agaaattcct	ggatactggg	ttgaatatag	acagtctgga	72060
gacagtgcct	ggaagaagag	caataaggaa	cgtattaagg	acaagcaatt	cacaatagga	72120
ggtttgctgg	aagctactga	gtatgaattc	agggtttttg	ctgagaatga	gactgggctg	72180
agcagacctc	gcagaactgc	tatgtctata	aagactaaac	tcacatctgg	agaggcccca	72240
ggaatacgca	aagaaatgaa	ggatgttacc	acaaaattgg	gtgaagctgc	tcaactctca	72300
tgccagattg	ttggaaggcc	tcttctcgac	attaaatggt	acagatttgg	taaagagctc	72360
atacaaagcc	ggaaatacaa	aatgtcttca	gatggacgca	cacacactct	tacagtaatg	72420
acagaggaac	aggaagatga	aggtgtttat	acctgcatag	ccaccaatga	ggttgagaaa	72480
gtagaaacca	gtagtaagct	tctcctgcaa	gcaacaccgc	agttccatcc	tggttaccca	72540
ctgaaagaga	aatattatgg	agctgtgggt	tccacacttc	ggcttcatgt	tatgtacatt	72600

ggtcgtccag	tacctgccat	gacttgggttc	catgggtcaga	aactttttgca	aaactcagaa	72660
aacattacta	ttgaaaacac	tgagcactat	actcatcttg	tcatgaagaa	tgtccaacgt	72720
aagactcatg	ctgggaaata	caaagtccag	ctcagcaatg	tttttggaa	agttgatgcc	72780
atccttgatg	tggaaataca	agataaacca	gacaaaccta	caggaccaat	tgtgatcgaa	72840
gctctattga	agaactccgc	agtgatcagc	tggaaaccac	ccgcagatga	cggaggctcc	72900
tggatcacca	actatgtggt	ggaaaaatgt	gaggccaagg	agggggctga	atggcaattg	72960
gtgtcttcag	ccatctcagt	gacaacctgt	agaattgtga	acctcacaga	aaatgctggc	73020
tattacttcc	gggttttcagc	tcagaacact	ttcggcatca	gtgaccctct	agaagtgtcc	73080
tcagttgtga	tcattaagag	tccatttgaa	aagccagggtg	ctcctggcaa	accaactatt	73140
actgctgtca	caaaagattc	ttgtgtttgtg	gcctggaagc	cacctgccag	tgatggagggt	73200
gcaaagatta	gaaattacta	ccttgagaag	cgtgagaaga	agcagaataa	atggatttct	73260
gtgacaacag	aagaaattcg	agaaactgtc	ttttcagtga	aaaaccttat	tgaaggctct	73320
gaatacagag	ttcgtgtgaa	atgtgaaaat	ctaggtgggg	aaagtgaatg	gagtgaataa	73380
tcagaaccca	tactcccaa	atctgatgtc	ccaattcagg	caccacactt	taaaggaggaa	73440
ctgagaaatc	taaatgtcag	atatcagagc	aatgctacct	tggtctgcaa	agtgactggt	73500
catccaaaac	ctatcgtcaa	atggtacaga	caaggcaaag	aaatcattgc	agatggatta	73560
aaatatagga	ttcaagaatt	taagggtggc	taccaccagc	tcatcattgc	aagtgtcaca	73620
gatgatgatg	ccacagttta	ccaagtcaga	gctaccaacc	aagggggatc	tgtgtctggc	73680
actgcctcct	tggaaagtga	agttccagct	aagatacact	tacctaaaac	tcttgaaggc	73740
atgggagcag	ttcatgctct	ccgaggtgaa	gtggctcagc	tcaagattcc	tttcagtggc	73800
aaaccagatc	ctgtgatcac	ctggcagaaa	ggacaagatc	tcattgacaa	taatggccac	73860
taccaagtta	ttgtcacaa	atccttcaca	tcacttgttt	tccccaatgg	ggtagagaga	73920
aaagatgctg	gtttctatgt	ggtctgtgct	aaaaacagat	ttggaattga	tcagaagaca	73980
gttgaactgg	atgtggctga	tgttctctgac	ccaccagag	gagtcaaagt	tagtgatgcc	74040
tcacgagatt	ctgtcaactt	aacatggact	gagccagcct	ctgatgggtg	cagcaaaatc	74100
accaactaca	ttgttgaaaa	atgtgcaact	atgcagaaa	gatggctccg	tgtaggacag	74160
gcccagaaaa	caggttatac	cgtgatcaac	ttattttgaa	aaacaagtta	ccagttccgg	74220
gtaatagctg	aaaataaatt	tggtctgagc	aagccttcag	agccttcaga	accaaccata	74280
accaaagaag	ataagaccag	agctatgaac	tatgatgaag	aggtagatga	aaccagggaa	74340
gtctccatga	ctaaagcatc	tcactcttca	accaaggaac	tctatgagaa	atatatgatt	74400
gctgaagatc	ttgggcgtgg	tgagtttgga	attgtccatc	gttgtgttga	aacatcctca	74460
aagaagacat	acatggccaa	atttgtttaa	gtcaaaggga	ctgatcaggt	tttggtaaag	74520
aaggaaaattt	ccattctgaa	tattgctagg	catagaaaca	tcttacacct	ccatgaatca	74580
tttgaaaagca	tggagaagatt	agttatgatc	tttgagttaa	tatcaggact	tgacatattt	74640
gagcgcatta	acacaagtgc	ttttgaactt	aatgaaagag	aaattgttaag	ttatgttcac	74700
caggctctgtg	aagcacttca	gttttttacac	agtcataata	ttggacactt	tgacattaga	74760
ccagaaaata	tcattttacca	aaccagaaga	agctctacca	ttaaaatcat	agaatttggt	74820
caagcccgtc	agctgaaacc	aggggacaac	ttcaggcttc	tattcactgc	cccagaatac	74880
tatgcacctg	aagtccacca	gcatgatgtt	gtcagcacag	ccacagacat	gtggctcactt	74940
ggaacactgg	tatatgtgct	attgagtgg	atcaacccat	tcctggctga	aactaacc	75000
cagatcattg	agaatatcat	gaatgctgaa	tatactttcg	atgaggaagc	attcaaagag	75060
attagcattg	aagccatgga	ttttgttgac	cggttgttag	tgaaagagag	gaaatctcgc	75120
atgacagcat	cggaggctct	ccagcaccca	tggttgaaag	agaagataga	aagagtcagt	75180
actaaagtta	tcagaacatt	aaaacacccg	cgttattacc	acaccctgat	caagaaagac	75240
ctcaacatgg	ttgtgtcagc	agcccggatc	tcctgtgggtg	gtgcaattcg	atctcagaag	75300
ggagtgaagt	ttgctaaagt	taaagtggca	tccattgaaa	ttggcccagt	ttctgggcag	75360
ataatgcatg	cagttgggtga	agaaggagga	catgtcaaat	atgtatgcaa	aattgaaaat	75420
tatgatcagt	ctacccaagt	gacttgggtac	tttgggtgtcc	gacagctgga	gaacagtga	75480
aaatacgaaa	tcacctacga	agatggagtg	gccatcctct	atgtcaaaga	cattaccaaa	75540
ttagatgatg	gtacctacag	atgcaaagta	gtcaatgact	atgggtgaaga	cagttcttat	75600
gcagagctat	ttgttaaagg	tgtgagagaa	gtctatgact	attactgccg	tagaaccatg	75660
aagaaaatta	agcgcagaa	agacacaatg	agactcctgg	aaaggccacc	agaatttacc	75720
ctgcctctct	ataataagac	agcttatgta	ggtgaaaatg	tccggttttg	agtaactata	75780
actgtccacc	cagagcctca	tgtaacatgg	tataaatcag	gtcagaaaat	caaaccaggt	75840
gacaatgaca	agaagtacac	atgtgagtca	gacaagggtc	tttaccaatt	aacaatcaac	75900
agtgtcacta	cagatgatga	cgtggaatat	actgttgtgg	caaggaacaa	atatggtgaa	75960
gacagctgta	aagcaaagct	gacagtaacc	ctacacccac	ctccaacaga	tagtacctta	76020
agacccatgt	tcaaaaaggtt	actggcaaat	gcagaatgcc	aagaaggcca	aagtgtctgc	76080
tttgagatca	gagtgtctgg	catccccca	ccaacattaa	aatgggagaa	agatgggtcag	76140

ccactgtccc	tcgggcctaa	cattgaaatt	atccatgaag	gcttggatta	ttatgctctg	76200
cacatcaggg	acactttgcc	tgaagacacg	ggttattata	gagtcacagc	cactaacaca	76260
gctgggtcca	ccagctgcca	ggctcaccta	caagtggaa	gcctgaggta	caagaaacag	76320
gaattcaaga	gtaaggagga	gcatgagcga	cacgtacaaa	aacaaattga	caaaaccctc	76380
agaatggctg	aaattctttc	tggaaactgaa	agtgtaccac	tgacacaggt	agctaaagag	76440
gctctgagag	aagctgctgt	cctttataaa	ccggctgtaa	gcaccaagac	tgtaaaaggg	76500
gaattcagac	ttgagataga	agaaaagaag	gaggagagaa	aactccggat	gccttatgat	76560
gtaccagagc	cacgcaagta	taagcagact	accatagaag	aagaccaacg	catcaagcag	76620
ttcgtgcccc	tgtctgacat	gaagtgggtat	aaaaagatac	gtgatcagta	tgaaatgcct	76680
gggaaacttg	acagagttgt	acagaaacga	cccaagcgca	tccgcctttc	aagatgggaa	76740
cagttctatg	tgatgcctct	tccacgcatt	acagatcaat	acagacctaa	atggcgtatt	76800
cctaaactgt	cccaagatga	tcttgagata	gtgagaccag	cccgcggcg	tacaccttct	76860
cctgattatg	acttttacta	ccgacctaga	agacgttctc	ttggggacat	ctctgatgaa	76920
gaattactcc	tccccattga	tgactactta	gcaatgaaaa	gaacagagga	agagaggctg	76980
cgtcttgaag	aagagcttga	gttaggtttt	tcagcttcac	ccccaaagtcg	aagccctcca	77040
cactttgagc	tttctagcct	acgttactct	tcaccacaag	ctcatgtcaa	ggtggaggaa	77100
acaagaaaaa	acttcaggta	ttcaacctat	cacatcccaa	cgaaggctga	agctagtaca	77160
agttatgcag	aactgaggga	acggcatgcc	caggctgcgt	acagacagcc	aaagcaacgg	77220
caaagaatca	tggctgagag	ggaggatgaa	gagttgcttc	gcccagttac	gaccacccag	77280
catctctcag	aatacaaaaag	cgaacttgac	ttcatgtcaa	aggaggaaaa	gtctagaaag	77340
aatcaaggc	gacaaaagaga	agtgcagaaa	ataacagaaa	ttgaggaaga	atacgaaatc	77400
tcaaaacatg	ctcaaaagaga	atcatcctca	tctgcgtcta	gactactgag	acgacggcgc	77460
tccctgtctc	caacttatat	tgagttaatg	aggccagtgt	ctgagctgat	ccggtcacgt	77520
ccacaaccgg	ctgaggaata	cgaagatgac	acagaaagaa	ggtcacctac	tccagagaga	77580
actcggccac	gatccccag	ccctgtgtct	agtgcagagt	cactctcgag	atctgagagg	77640
tctgcaagat	ttgatatctt	ttccagggtat	gagtcocatga	aagctgcttt	aaaaactcag	77700
aagacatcag	aaaggaagta	tgaagttttg	agtcagcagc	ctttcacact	ggaccatgcc	77760
cctcgaatca	cactgagaat	gcgctcgcac	agggatccat	gtggccaaaa	tacacgtttt	77820
attttaaatg	ttcagtctaa	gccaactgcc	gaggttaaat	ggtaccacaa	tggtgtggaa	77880
ctccaagaaa	gcagtaagat	tcattacacc	aacacgagtg	gagtcctcac	cctggaaatt	77940
ctggactgtc	atactgatga	cagtggaaac	taccgtgctg	tgtgcaccaa	ctacaagggc	78000
gaagcttctg	actatgcaac	gttggacgtg	acaggagggg	attataccac	ctatgcttcc	78060
caacgcagag	atgaagaggt	ccccagatct	gttttccctg	agctgacaag	aacagaggcg	78120
tatgctgttc	catcatttaa	gaaaacatct	gagatggaag	cttcgtcttc	tgtcagggaa	78180
gtgaaatcac	agatgacgga	gacaagggaa	agtctctcct	catatgaaca	ctctgcatct	78240
gcagaaatga	aaagtgtctg	attagaagaa	aagtcactgg	aagaaaaatc	cacaaccaga	78300
aagatcaaga	cgactttggc	agcaagaatt	ctaacaaagc	cacggtccat	gaccgtctac	78360
gagggcgagt	ctgcaagggt	ttcttgtgac	accgatgggt	agccggtacc	aactgtgacc	78420
tggctgcgta	aaggacaagt	gctaagtact	tctgcccgc	accaagtgc	caccacaaag	78480
tacaaatcaa	cctttgagat	ctcttcagtc	caggcttccg	atgagggcaa	ttacagcgtg	78540
gtggtagaaa	acagtgaagg	gaaacaagaa	gcagagtcca	ctctgactat	tcaaaaggcc	78600
agggtaaactg	aaaaggctgt	gacatcacca	ccaagagtca	aatccccaga	gcctcgggtg	78660
aaatccccag	aagcagttaa	gtctccaaaa	cgagtgaat	ctccagaacc	ttctcaccgc	78720
aaagccgtat	caccacagaa	gacaaaacca	acaccaagag	agaaagtcca	gcacctccca	78780
gtctctgccc	caccaaagat	tactcagttc	ctgaaagcag	aagcttctaa	agagattgca	78840
aaactgacct	gtgtgggttg	aagcagtgta	ttaagggcaa	aagaggtcac	ctggtataaa	78900
gatggcaaga	aactgaagga	aaatgggcat	ttccagtttc	attattcagc	agatgggtacc	78960
tatgagctca	aaatcaataa	cctcactgaa	tctgatcaag	gagaatatgt	ttgtgagatt	79020
tctggtgaag	gtggaacgtc	taaaaccaac	ttacaattta	tggggcaagc	ctttaagagt	79080
atccatgaga	aggtatcaaa	aatatcagaa	actaagaaat	cagatcagaa	aaccactgag	79140
tcaacagtaa	ccagaaaaaac	tgaaccaaaa	gctcctgaac	caatttcctc	aaaaccagta	79200
attgttactg	ggttgacgga	tacaactgtt	tcttcagaca	gtgttgctaa	atttgagatt	79260
aaggctactg	gagaaccccc	gccaactgcc	atctggacaa	aagatggaaa	ggccattaca	79320
caaggaggtg	aatataaaact	ctctgaagac	aagggagggt	tcttcttaga	aattcataag	79380
actgatactt	ctgacagtg	actttatact	tgtacagtaa	aaaattcagc	tggtatctgtg	79440
tcctctagct	gcaaaattaac	aataaaaagct	ataaaaagata	ctgaggcaca	gaaagtctct	79500
acacaaaaga	cttctgaaat	tacacctcag	aagaaagctg	ttgtccaaga	ggaaatttcc	79560
caaaaagccc	taaggtctga	agaaattaa	atgtcagagg	caaaatctca	agaaaagtta	79620
gccctcaaa	aggaagcttc	aaaggttctg	atctctgaag	aagtcaagaa	atcagcagca	79680

```

acctccctgg aaaaatccat tgtccatgag gaaatcacta aaacatcaca ggcacagaa 79740
gaagtcagaa ctcatgctga gattaaagca ttttctactc agatgagcat aaacgaaggt 79800
caaagactgg ttttaaaagc caacattgct ggtgccactg atgtgaaatg ggtactgaat 79860
ggcgttagagc ttaccaactc tgaggagtac cgatatggtg tctcaggcag cgatcagacc 79920
ctaaccatca agcaagccag tcacagagat gaaggaatcc tcacctgcat aagcaaaacc 79980
aaggaaggaa tcgtcaagtg tcagtatgat ttgacactga gcaaagaact ctcagatgct 80040
ccagccttca tctcacagcc tagatctcaa aatattaatg aaggacaaaa tgttctcttt 80100
acttgtgaaa tcagtggcga gccatccccct gaaatcgaat ggtttaaaaa caacctgcca 80160
atcttctattt cttcaaatgt cagcataagc cgctccagaa atgtatactc ccttgaaatc 80220
cgaaatgcat cagtcagcga cagtggaaag tacacaatta aggccaaaaa tttcgtggc 80280
cagtgttcag ctacagcttc cttaatggtc cttcctctag ttgaagaacc ttccagagag 80340
gtagtattga gaacaagtgg tgacacaagc ttgcaaggaa gcttctcgtc tcagtcagtc 80400
caaatgtctg cctccaagca ggaggcctcc ttcagcagtt tcagcagcag cagtgtctagc 80460
agcatgactg agatgaaatt tgcaagcatg tctgccccaa gcatgtcctc catgcaagag 80520
tcctttgtag aaatgagttc cagcagcttt atgggaatat ctaatatgac acaactggaa 80580
agctcaacta gtaaaatgct taaagcaggc ataagaggaa ttccgcctaa aattgaagct 80640
cttccatctg atatcagcat tgatgaaggc aaagtctctaa cagtagcctg tgctttcacg 80700
ggtgagccta ccccgagaagt aacatgggtcc tgtgggtggaa gaaaaatcca cagtcaagaa 80760
caggggaggt tccacattga aaacacagat gacctgacaa ccctgatcat catggacgta 80820
cagaacaag atggtggact ttataccctg agtttaggga atgaatttgg atctgactct 80880
gccactgtga atatacatat tcgatccatt taagagggcc tgtgccctta tactctacac 80940
tcattcttaa cttttcgcaa acgtttcaca cggactaatc tttctgaact gtaaatattt 81000
aaagaaaaaa agtagttttg tatcaaccta aatgagtcaa agttcaaaaa tattcatttc 81060
aatcttttca taattgttga cctaagaata taatacattt gctagtgcata tgtacatact 81120
gtatatagcc ggattaacgg ttataaagtt ttgtaccatt tattttatga catttttaca 81180
tgtaagtttt gaaactaact gttggttagga gaaagtttct tatggaacga ataccctgct 81240
caacatttaa tcaatctttg tgctcaaca tactgttgat gtctaagtat gcctcagtg 81300
gttgagaaaa tccccattga agatgtcctg tccacctaaa agagaatgat gctgtgcata 81360
tcacttgata tgtgcaccaa tacctactga atcagaaatg taaggcattg gtgatgtttg 81420
catttaccct cctgtaagca acactttaac gtcttacatt ttctctgatg atgtcacaca 81480
aaattatcat gacaaatatt accagagcaa agtgtaacgg ccaacacttt gttcgctcat 81540
tttacgctgt ctctgacata aggagtgcct gaatagcttg gaaaagtaac atctcctggc 81600
catcccttca tttaaccaag ctattcaagt attcctatgc cagagcagtg ccaactcttg 81660
gaggtcccag agtgcaagcca atgcctttgt gtggtagttc taaattttta ttgcacctga 81720
aaaacctggg cacctaagca atgagccaca gcaaaaagta aagaacaaca acaaaaataa 81780
gctgttgta aatttttaaac aatattacta attgccccaa atgtcaattt gatgtagttc 81840
ttttcatgca agtataaatt caattgttag ttataattgt tggacctcct tgagatagta 81900
acaacaaaat aaagcaagct atctgcacct caaaaaaaaa 81940

```

```

<210> 2
<211> 26926
<212> PRT
<213> Homo sapiens

```

```

<400> 2
Met Thr Thr Gln Ala Pro Thr Phe Thr Gln Pro Leu Gln Ser Val Val
1          5          10          15
Val Leu Glu Gly Ser Thr Ala Thr Phe Glu Ala His Ile Ser Gly Phe
20          25          30
Pro Val Pro Glu Val Ser Trp Phe Arg Asp Gly Gln Val Ile Ser Thr
35          40          45
Ser Thr Leu Pro Gly Val Gln Ile Ser Phe Ser Asp Gly Arg Ala Lys
50          55          60
Leu Thr Ile Pro Ala Val Thr Lys Ala Asn Ser Gly Arg Tyr Ser Leu
65          70          75          80
Lys Ala Thr Asn Gly Ser Gly Gln Ala Thr Ser Thr Ala Glu Leu Leu
85          90          95

```


Val	Lys	Ala	Glu	Thr	Ala	Pro	Pro	Asn	Phe	Val	Gln	Arg	Leu	Gln	Ser
Met	Thr	Val	Arg	Gln	Gly	Ser	Gln	Val	Arg	Leu	Gln	Val	Arg	Val	Thr
Gly	Ile	Pro	Thr	Pro	Val	Val	Lys	Phe	Tyr	Arg	Asp	Gly	Ala	Glu	Ile
Gln	Ser	Ser	Leu	Asp	Phe	Gln	Ile	Ser	Gln	Glu	Gly	Asp	Leu	Tyr	Ser
Leu	Leu	Ile	Ala	Glu	Ala	Tyr	Pro	Glu	Asp	Ser	Gly	Thr	Tyr	Ser	Val
Asn	Ala	Thr	Asn	Ser	Val	Gly	Arg	Ala	Thr	Ser	Thr	Ala	Glu	Leu	Leu
Val	Gln	Gly	Glu	Glu	Glu	Val	Pro	Ala	Lys	Lys	Thr	Lys	Thr	Ile	Val
Ser	Thr	Ala	Gln	Ile	Ser	Glu	Ser	Arg	Gln	Thr	Arg	Ile	Glu	Lys	Lys
Ile	Glu	Ala	His	Phe	Asp	Ala	Arg	Ser	Ile	Ala	Thr	Val	Glu	Met	Val
Ile	Asp	Gly	Ala	Ala	Gly	Gln	Gln	Leu	Pro	His	Lys	Thr	Pro	Pro	Arg
Ile	Pro	Pro	Lys	Pro	Lys	Ser	Arg	Ser	Pro	Thr	Pro	Pro	Ser	Ile	Ala
Ala	Lys	Ala	Gln	Leu	Ala	Arg	Gln	Gln	Ser	Pro	Ser	Pro	Ile	Arg	His
Ser	Pro	Ser	Pro	Val	Arg	His	Val	Arg	Ala	Pro	Thr	Pro	Ser	Pro	Val
Arg	Ser	Val	Ser	Pro	Ala	Ala	Arg	Ile	Ser	Thr	Ser	Pro	Ile	Arg	Ser
Val	Arg	Ser	Pro	Leu	Leu	Met	Arg	Lys	Thr	Gln	Ala	Ser	Thr	Val	Ala
Thr	Gly	Pro	Glu	Val	Pro	Pro	Pro	Trp	Lys	Gln	Glu	Gly	Tyr	Val	Ala
Ser	Ser	Ser	Glu	Ala	Glu	Met	Arg	Glu	Thr	Thr	Leu	Thr	Thr	Ser	Thr
Gln	Ile	Arg	Thr	Glu	Glu	Arg	Trp	Glu	Gly	Arg	Tyr	Gly	Val	Gln	Glu
Gln	Val	Thr	Ile	Ser	Gly	Ala	Ala	Gly	Ala	Ala	Ala	Ser	Val	Ser	Ala
Ser	Ala	Ser	Tyr	Ala	Ala	Glu	Ala	Val	Ala	Thr	Gly	Ala	Lys	Glu	Val
Lys	Gln	Asp	Ala	Asp	Lys	Ser	Ala	Ala	Val	Ala	Thr	Val	Val	Ala	Ala
Val	Asp	Met	Ala	Arg	Val	Arg	Glu	Pro	Val	Ile	Ser	Ala	Val	Glu	Gln
Thr	Ala	Gln	Arg	Thr	Thr	Thr	Thr	Ala	Val	His	Ile	Gln	Pro	Ala	Gln
Glu	Gln	Val	Arg	Lys	Glu	Ala	Glu	Lys	Thr	Ala	Val	Thr	Lys	Val	Val
Val	Ala	Ala	Asp	Lys	Ala	Lys	Glu	Gln	Glu	Leu	Lys	Ser	Arg	Thr	Lys
Glu	Ile	Ile	Thr	Thr	Lys	Gln	Glu	Gln	Met	His	Val	Thr	His	Glu	Gln
Ile	Arg	Lys	Glu	Thr	Glu	Lys	Thr	Phe	Val	Pro	Lys	Val	Val	Ile	Ser
Ala	Ala	Lys	Ala	Lys	Glu	Gln	Glu	Thr	Arg	Ile	Ser	Glu	Glu	Ile	Thr
Lys	Lys	Gln	Lys	Gln	Val	Thr	Gln	Glu	Ala	Ile	Met	Lys	Glu	Thr	Arg
Lys	Thr	Val	Val	Pro	Lys	Val	Ile	Val	Ala	Thr	Pro	Lys	Val	Lys	Glu

Gln	Asp	Leu	Val	565	Ser	Arg	Gly	Arg	Glu	570	Gly	Ile	Thr	Thr	Lys	575	Arg	Glu
			580						585						590			
Gln	Val	Gln	Ile	Thr	Gln	Glu	Lys	Met	Arg	Lys	Glu	Ala	Glu	Lys	Thr			
		595					600					605						
Ala	Leu	Ser	Thr	Ile	Ala	Val	Ala	Thr	Ala	Lys	Ala	Lys	Glu	Gln	Glu			
	610						615				620							
Thr	Ile	Leu	Arg	Thr	Arg	Glu	Thr	Met	Ala	Thr	Arg	Gln	Glu	Gln	Ile			
625						630					635				640			
Gln	Val	Thr	His	Gly	Lys	Val	Asp	Val	Gly	Lys	Lys	Ala	Glu	Ala	Val			
				645					650						655			
Ala	Thr	Val	Val	Ala	Ala	Val	Asp	Gln	Ala	Arg	Val	Arg	Glu	Pro	Arg			
			660					665						670				
Glu	Pro	Gly	His	Leu	Glu	Glu	Ser	Tyr	Ala	Gln	Gln	Thr	Thr	Leu	Glu			
		675					680					685						
Tyr	Gly	Tyr	Lys	Glu	Arg	Ile	Ser	Ala	Ala	Lys	Val	Ala	Glu	Pro	Pro			
	690						695				700							
Gln	Arg	Pro	Ala	Ser	Glu	Pro	His	Val	Val	Pro	Lys	Ala	Val	Lys	Pro			
705					710					715					720			
Arg	Val	Ile	Gln	Ala	Pro	Ser	Glu	Thr	His	Ile	Lys	Thr	Thr	Asp	Gln			
				725					730					735				
Lys	Gly	Met	His	Ile	Ser	Ser	Gln	Ile	Lys	Lys	Thr	Thr	Asp	Leu	Thr			
			740					745					750					
Thr	Glu	Arg	Leu	Val	His	Val	Asp	Lys	Arg	Pro	Arg	Thr	Ala	Ser	Pro			
		755					760					765						
His	Phe	Thr	Val	Ser	Lys	Ile	Ser	Val	Pro	Lys	Thr	Glu	His	Gly	Tyr			
	770					775					780							
Glu	Ala	Ser	Ile	Ala	Gly	Ser	Ala	Ile	Ala	Thr	Leu	Gln	Lys	Glu	Leu			
785					790				795						800			
Ser	Ala	Thr	Ser	Ser	Ala	Gln	Lys	Ile	Thr	Lys	Ser	Val	Lys	Ala	Pro			
				805					810					815				
Thr	Val	Lys	Pro	Ser	Glu	Thr	Arg	Val	Arg	Ala	Glu	Pro	Thr	Pro	Leu			
			820					825					830					
Pro	Gln	Phe	Pro	Phe	Ala	Asp	Thr	Pro	Asp	Thr	Tyr	Lys	Ser	Glu	Ala			
		835					840					845						
Gly	Val	Glu	Val	Lys	Lys	Glu	Val	Gly	Val	Ser	Ile	Thr	Gly	Thr	Thr			
	850					855					860							
Val	Arg	Glu	Glu	Arg	Phe	Glu	Val	Leu	His	Gly	Arg	Glu	Ala	Lys	Val			
865					870					875					880			
Thr	Glu	Thr	Ala	Arg	Val	Pro	Ala	Pro	Val	Glu	Ile	Pro	Val	Thr	Pro			
				885					890					895				
Pro	Thr	Leu	Val	Ser	Gly	Leu	Lys	Asn	Val	Thr	Val	Ile	Glu	Gly	Glu			
			900					905					910					
Ser	Val	Thr	Leu	Glu	Cys	His	Ile	Ser	Gly	Tyr	Pro	Ser	Pro	Thr	Val			
		915					920					925						
Thr	Trp	Tyr	Arg	Glu	Asp	Tyr	Gln	Ile	Glu	Ser	Ser	Ile	Asp	Phe	Gln			
	930					935					940							
Ile	Thr	Phe	Gln	Ser	Gly	Ile	Ala	Arg	Leu	Met	Ile	Arg	Glu	Ala	Phe			
945					950					955					960			
Ala	Glu	Asp	Ser	Gly	Arg	Phe	Thr	Cys	Ser	Ala	Val	Asn	Glu	Ala	Gly			
				965					970					975				
Thr	Val	Ser	Thr	Ser	Cys	Tyr	Leu	Ala	Val	Gln	Val	Ser	Glu	Glu	Phe			
			980					985					990					
Glu	Lys	Glu	Thr	Thr	Ala	Val	Thr	Glu	Lys	Phe	Thr	Thr	Glu	Glu	Lys			
		995					1000					1005						
Arg	Phe	Val	Glu	Ser	Arg	Asp	Val	Val	Met	Thr	Asp	Thr	Ser	Leu	Thr			
	1010					1015					1020							
Glu	Glu	Gln	Ala	Gly	Pro	Gly	Glu	Pro	Ala	Ala	Pro	Tyr	Phe	Ile	Thr			
1025					1030					1035					1040			

Lys	Pro	Val	Val	Gln	Lys	Leu	Val	Glu	Gly	Gly	Ser	Val	Val	Phe	Gly		
				1045					1050					1055			
Cys	Gln	Val	Gly	Gly	Asn	Pro	Lys	Pro	His	Val	Tyr	Trp	Lys	Lys	Ser		
			1060					1065					1070				
Gly	Val	Pro	Leu	Thr	Thr	Gly	Tyr	Arg	Tyr	Lys	Val	Ser	Tyr	Asn	Lys		
		1075					1080					1085					
Gln	Thr	Gly	Glu	Cys	Lys	Leu	Val	Ile	Ser	Met	Thr	Phe	Ala	Asp	Asp		
	1090					1095					1100						
Ala	Gly	Glu	Tyr	Thr	Ile	Val	Val	Arg	Asn	Lys	His	Gly	Glu	Thr	Ser		
1105					1110					1115					1120		
Ala	Ser	Ala	Ser	Leu	Leu	Glu	Glu	Ala	Asp	Tyr	Glu	Leu	Leu	Met	Lys		
				1125					1130					1135			
Ser	Gln	Gln	Glu	Met	Leu	Tyr	Gln	Thr	Gln	Val	Thr	Ala	Phe	Val	Gln		
		1140						1145					1150				
Glu	Pro	Glu	Val	Gly	Glu	Thr	Ala	Pro	Gly	Phe	Val	Tyr	Ser	Glu	Tyr		
	1155						1160					1165					
Glu	Lys	Glu	Tyr	Glu	Lys	Glu	Gln	Ala	Leu	Ile	Arg	Lys	Lys	Met	Ala		
	1170					1175					1180						
Lys	Asp	Thr	Val	Val	Val	Arg	Thr	Tyr	Val	Glu	Asp	Gln	Glu	Phe	His		
1185					1190					1195					1200		
Ile	Ser	Ser	Phe	Glu	Glu	Arg	Leu	Ile	Lys	Glu	Ile	Glu	Tyr	Arg	Ile		
			1205						1210					1215			
Ile	Lys	Thr	Thr	Leu	Glu	Glu	Leu	Leu	Glu	Glu	Asp	Gly	Glu	Glu	Lys		
		1220						1225					1230				
Met	Ala	Val	Asp	Ile	Ser	Glu	Ser	Glu	Ala	Val	Glu	Ser	Gly	Phe	Asp		
	1235					1240					1245						
Leu	Arg	Ile	Lys	Asn	Tyr	Arg	Ile	Leu	Glu	Gly	Met	Gly	Val	Thr	Phe		
	1250					1255					1260						
His	Cys	Lys	Met	Ser	Gly	Tyr	Pro	Leu	Pro	Lys	Ile	Ala	Trp	Tyr	Lys		
1265					1270					1275					1280		
Asp	Gly	Lys	Arg	Ile	Lys	His	Gly	Glu	Arg	Tyr	Gln	Met	Asp	Phe	Leu		
			1285						1290					1295			
Gln	Asp	Gly	Arg	Ala	Ser	Leu	Arg	Ile	Pro	Val	Val	Leu	Pro	Glu	Asp		
		1300						1305				1310					
Glu	Gly	Ile	Tyr	Thr	Ala	Phe	Ala	Ser	Asn	Ile	Lys	Gly	Asn	Ala	Ile		
	1315					1320						1325					
Cys	Ser	Gly	Lys	Leu	Tyr	Val	Glu	Pro	Ala	Ala	Pro	Leu	Gly	Ala	Pro		
	1330					1335					1340						
Thr	Tyr	Ile	Pro	Thr	Leu	Glu	Pro	Val	Ser	Arg	Ile	Arg	Ser	Leu	Ser		
1345					1350					1355				1360			
Pro	Arg	Ser	Val	Ser	Arg	Ser	Pro	Ile	Arg	Met	Ser	Pro	Ala	Arg	Met		
			1365						1370					1375			
Ser	Pro	Ala	Arg	Met	Ser	Pro	Ala	Arg	Met	Ser	Pro	Ala	Arg	Met	Ser		
		1380						1385					1390				
Pro	Gly	Arg	Arg	Leu	Glu	Glu	Thr	Asp	Glu	Ser	Gln	Leu	Glu	Arg	Leu		
	1395						1400					1405					
Tyr	Lys	Pro	Val	Phe	Val	Leu	Lys	Pro	Val	Ser	Phe	Lys	Cys	Leu	Glu		
	1410					1415					1420						
Gly	Gln	Thr	Ala	Arg	Phe	Asp	Leu	Lys	Val	Val	Gly	Arg	Pro	Met	Pro		
1425					1430					1435				1440			
Glu	Thr	Phe	Trp	Phe	His	Asp	Gly	Gln	Gln	Ile	Val	Asn	Asp	Tyr	Thr		
			1445					1450						1455			
His	Lys	Val	Val	Ile	Lys	Glu	Asp	Gly	Thr	Gln	Ser	Leu	Ile	Ile	Val		
		1460						1465					1470				
Pro	Ala	Thr	Pro	Ser	Asp	Ser	Gly	Glu	Trp	Thr	Val	Val	Ala	Gln	Asn		
	1475						1480					1485					
Arg	Ala	Gly	Arg	Ser	Ser	Ile	Ser	Val	Ile	Leu	Thr	Val	Glu	Ala	Val		
	1490					1495					1500						
Glu	His	Gln	Val	Lys	Pro	Met	Phe	Val	Glu	Lys	Leu	Lys	Asn	Val	Asn		

1505		1510		1515		1520
Ile Lys Glu Gly Ser Arg Leu Glu Met Lys Val Arg Ala Thr Gly Asn						
	1525		1530			1535
Pro Asn Pro Asp Ile Val Trp Leu Lys Asn Ser Asp Ile Ile Val Pro						
	1540		1545			1550
His Lys Tyr Pro Lys Ile Arg Ile Glu Gly Thr Lys Gly Glu Ala Ala						
	1555		1560			1565
Leu Lys Ile Asp Ser Thr Val Ser Gln Asp Ser Ala Trp Tyr Thr Ala						
	1570		1575			1580
Thr Ala Ile Asn Lys Ala Gly Arg Asp Thr Thr Arg Cys Lys Val Asn						
1585		1590		1595		1600
Val Glu Val Glu Phe Ala Glu Pro Glu Pro Glu Arg Lys Leu Ile Ile						
	1605		1610			1615
Pro Arg Gly Thr Tyr Arg Ala Lys Glu Ile Ala Ala Pro Glu Leu Glu						
	1620		1625			1630
Pro Leu His Leu Arg Tyr Gly Gln Glu Gln Trp Glu Glu Gly Asp Leu						
	1635		1640			1645
Tyr Asp Lys Glu Lys Gln Gln Lys Pro Phe Phe Lys Lys Lys Leu Thr						
	1650		1655			1660
Ser Leu Arg Leu Lys Arg Phe Gly Pro Ala His Phe Glu Cys Arg Leu						
1665		1670		1675		1680
Thr Pro Ile Ser Asp Pro Thr Met Val Val Glu Trp Leu His Asp Gly						
	1685		1690			1695
Lys Pro Leu Glu Ala Ala Asn Arg Leu Arg Met Ile Asn Glu Phe Gly						
	1700		1705			1710
Tyr Cys Ser Leu Asp Tyr Gly Val Ala Tyr Ser Arg Asp Ser Gly Ile						
	1715		1720			1725
Ile Thr Cys Arg Ala Thr Asn Lys Tyr Gly Thr Asp His Thr Ser Ala						
	1730		1735			1740
Thr Leu Ile Val Lys Asp Glu Lys Ser Leu Val Glu Glu Ser Gln Leu						
1745		1750		1755		1760
Pro Glu Gly Arg Lys Gly Leu Gln Arg Ile Glu Glu Leu Glu Arg Met						
	1765		1770			1775
Ala His Glu Gly Ala Leu Thr Gly Val Thr Thr Asp Gln Lys Glu Lys						
	1780		1785			1790
Gln Lys Pro Asp Ile Val Leu Tyr Pro Glu Pro Val Arg Val Leu Glu						
	1795		1800			1805
Gly Glu Thr Ala Arg Phe Arg Cys Arg Val Thr Gly Tyr Pro Gln Pro						
	1810		1815			1820
Lys Val Asn Trp Tyr Leu Asn Gly Gln Leu Ile Arg Lys Ser Lys Arg						
1825		1830		1835		1840
Phe Arg Val Arg Tyr Asp Gly Ile His Tyr Leu Asp Ile Val Asp Cys						
	1845		1850			1855
Lys Ser Tyr Asp Thr Gly Glu Val Lys Val Thr Ala Glu Asn Pro Glu						
	1860		1865			1870
Gly Val Ile Glu His Lys Val Lys Leu Glu Ile Gln Gln Arg Glu Asp						
	1875		1880			1885
Phe Arg Ser Val Leu Arg Arg Ala Pro Glu Pro Arg Pro Glu Phe His						
	1890		1895			1900
Val His Glu Pro Gly Lys Leu Gln Phe Glu Val Gln Lys Val Asp Arg						
1905		1910		1915		1920
Pro Val Asp Thr Thr Glu Thr Lys Glu Val Val Lys Leu Lys Arg Ala						
	1925		1930			1935
Glu Arg Ile Thr His Glu Lys Val Pro Glu Glu Ser Glu Glu Leu Arg						
	1940		1945			1950
Ser Lys Phe Lys Arg Arg Thr Glu Glu Gly Tyr Tyr Glu Ala Ile Thr						
	1955		1960			1965
Ala Val Glu Leu Lys Ser Arg Lys Lys Asp Glu Ser Tyr Glu Glu Leu						
	1970		1975			1980

Leu Arg Lys Thr Lys Asp Glu Leu Leu His Trp Thr Lys Glu Leu Thr
 1985 1990 1995 2000
 Glu Glu Glu Lys Lys Ala Leu Ala Glu Glu Gly Lys Ile Thr Ile Pro
 2005 2010 2015
 Thr Phe Lys Pro Asp Lys Ile Glu Leu Ser Pro Ser Met Glu Ala Pro
 2020 2025 2030
 Lys Ile Phe Glu Arg Ile Gln Ser Gln Thr Val Gly Gln Gly Ser Asp
 2035 2040 2045
 Ala His Phe Arg Val Arg Val Val Gly Lys Pro Asp Pro Glu Cys Glu
 2050 2055 2060
 Trp Tyr Lys Asn Gly Val Lys Ile Glu Arg Ser Asp Arg Ile Tyr Trp
 2065 2070 2075 2080
 Tyr Trp Pro Glu Asp Asn Val Cys Glu Leu Val Ile Arg Asp Val Thr
 2085 2090 2095
 Ala Glu Asp Ser Ala Ser Ile Met Val Lys Ala Ile Asn Ile Ala Gly
 2100 2105 2110
 Glu Thr Ser Ser His Ala Phe Leu Leu Val Gln Ala Lys Gln Leu Ile
 2115 2120 2125
 Thr Phe Thr Gln Glu Leu Gln Asp Val Val Ala Lys Glu Lys Asp Thr
 2130 2135 2140
 Met Ala Thr Phe Glu Cys Glu Thr Ser Glu Pro Phe Val Lys Val Lys
 2145 2150 2155 2160
 Trp Tyr Lys Asp Gly Met Glu Val His Glu Gly Asp Lys Tyr Arg Met
 2165 2170 2175
 His Ser Asp Arg Lys Val His Phe Leu Ser Ile Leu Thr Ile Asp Thr
 2180 2185 2190
 Ser Asp Ala Glu Asp Tyr Ser Cys Val Leu Val Glu Asp Glu Asn Val
 2195 2200 2205
 Lys Thr Thr Ala Lys Leu Ile Val Glu Gly Ala Val Val Glu Phe Val
 2210 2215 2220
 Lys Glu Leu Gln Asp Ile Glu Val Pro Glu Ser Tyr Ser Gly Glu Leu
 2225 2230 2235 2240
 Glu Cys Ile Val Ser Pro Glu Asn Ile Glu Gly Lys Trp Tyr His Asn
 2245 2250 2255
 Asp Val Glu Leu Lys Ser Asn Gly Lys Tyr Thr Ile Thr Ser Arg Arg
 2260 2265 2270
 Gly Arg Gln Asn Leu Thr Val Lys Asp Val Thr Lys Glu Asp Gln Gly
 2275 2280 2285
 Glu Tyr Ser Phe Val Ile Asp Gly Lys Lys Thr Thr Cys Lys Leu Lys
 2290 2295 2300
 Met Lys Pro Arg Pro Ile Ala Ile Leu Gln Gly Leu Ser Asp Gln Lys
 2305 2310 2315 2320
 Val Cys Glu Gly Asp Ile Val Gln Leu Glu Val Lys Val Ser Leu Glu
 2325 2330 2335
 Ser Val Glu Gly Val Trp Met Lys Asp Gly Gln Glu Val Gln Pro Ser
 2340 2345 2350
 Asp Arg Val His Ile Val Ile Asp Lys Gln Ser His Met Leu Leu Ile
 2355 2360 2365
 Glu Asp Met Thr Lys Glu Asp Ala Gly Asn Tyr Ser Phe Thr Ile Pro
 2370 2375 2380
 Ala Leu Gly Leu Ser Thr Ser Gly Arg Val Ser Val Tyr Ser Val Asp
 2385 2390 2395 2400
 Val Ile Thr Pro Leu Lys Asp Val Asn Val Ile Glu Gly Thr Lys Ala
 2405 2410 2415
 Val Leu Glu Cys Lys Val Ser Val Pro Asp Val Thr Ser Val Lys Trp
 2420 2425 2430
 Tyr Leu Asn Asp Glu Gln Ile Lys Pro Asp Asp Arg Val Gln Ala Ile
 2435 2440 2445
 Val Lys Gly Thr Lys Gln Arg Leu Val Ile Asn Arg Thr His Ala Ser

2450	2455	2460
Asp Glu Gly Pro Tyr Lys Leu Ile Val Gly Arg Val Glu Thr Asn Cys		
2465	2470	2475
Asn Leu Ser Val Glu Lys Ile Lys Ile Ile Arg Gly Leu Arg Asp Leu		2480
	2485	2490
Thr Cys Thr Glu Thr Gln Asn Val Val Phe Glu Val Glu Leu Ser His		2495
	2500	2505
Ser Gly Ile Asp Val Leu Trp Asn Phe Lys Asp Lys Glu Ile Lys Pro		2510
	2515	2520
Ser Ser Lys Tyr Lys Ile Glu Ala His Gly Lys Ile Tyr Lys Leu Thr		2525
	2530	2535
Val Leu Asn Met Met Lys Asp Asp Glu Gly Lys Tyr Thr Phe Tyr Ala		2540
2545	2550	2555
Gly Glu Asn Met Thr Ser Gly Lys Leu Thr Val Ala Gly Gly Ala Ile		2560
	2565	2570
Ser Lys Pro Leu Thr Asp Gln Thr Val Ala Glu Ser Gln Glu Ala Val		2575
	2580	2585
Phe Glu Cys Glu Val Ala Asn Pro Asp Ser Lys Gly Glu Trp Leu Arg		2590
	2595	2600
Asp Gly Lys His Leu Pro Leu Thr Asn Asn Ile Arg Ser Glu Ser Asp		2605
2610	2615	2620
Gly His Lys Arg Arg Leu Ile Ile Ala Ala Thr Lys Leu Asp Asp Ile		2625
2625	2630	2635
Gly Glu Tyr Thr Tyr Lys Val Ala Thr Ser Lys Thr Ser Ala Lys Leu		2640
	2645	2650
Lys Val Glu Ala Val Lys Ile Lys Lys Thr Leu Lys Asn Leu Thr Val		2655
	2660	2665
Thr Glu Thr Gln Asp Ala Val Phe Thr Val Glu Leu Thr His Pro Asn		2670
	2675	2680
Val Lys Gly Val Gln Trp Ile Lys Asn Gly Val Val Leu Glu Ser Asn		2685
2690	2695	2700
Glu Lys Tyr Ala Ile Ser Val Lys Gly Thr Ile Tyr Ser Leu Arg Ile		2705
	2710	2715
Lys Asn Cys Ala Ile Val Asp Glu Ser Val Tyr Gly Phe Arg Leu Gly		2720
	2725	2730
Arg Leu Gly Ala Ser Ala Arg Leu His Val Glu Thr Val Lys Ile Ile		2735
	2740	2745
Lys Lys Pro Lys Asp Val Thr Ala Leu Glu Asn Ala Thr Val Ala Phe		2750
	2755	2760
Glu Val Ser Val Ser His Asp Thr Val Pro Val Lys Trp Phe His Lys		2765
2770	2775	2780
Ser Val Glu Ile Lys Pro Ser Asp Lys His Arg Leu Val Ser Glu Arg		2785
2785	2790	2795
Lys Val His Lys Leu Met Leu Gln Asn Ile Ser Pro Ser Asp Ala Gly		2800
	2805	2810
Glu Tyr Thr Ala Val Val Gly Gln Leu Glu Cys Lys Ala Lys Leu Phe		2815
	2820	2825
Val Glu Thr Leu His Ile Thr Lys Thr Met Lys Asn Ile Glu Val Pro		2830
	2835	2840
Glu Thr Lys Thr Ala Ser Phe Glu Cys Glu Val Ser His Phe Asn Val		2845
2850	2855	2860
Pro Ser Met Trp Leu Lys Asn Gly Val Glu Ile Glu Met Ser Glu Lys		2865
2865	2870	2875
Phe Lys Ile Val Val Gln Gly Lys Leu His Gln Leu Ile Ile Met Asn		2880
	2885	2890
Thr Ser Thr Glu Asp Ser Ala Glu Tyr Thr Phe Val Cys Gly Asn Asp		2895
	2900	2905
Gln Val Ser Ala Thr Leu Thr Val Thr Pro Ile Met Ile Thr Ser Met		2910
	2915	2920
		2925

Leu Lys Asp Ile Asn Ala Glu Glu Lys Asp Thr Ile Thr Phe Glu Val
 2930 2935 2940
 Thr Val Asn Tyr Glu Gly Ile Ser Tyr Lys Trp Leu Lys Asn Gly Val
 2945 2950 2955 2960
 Glu Ile Lys Ser Thr Asp Lys Cys Gln Met Arg Thr Lys Lys Leu Thr
 2965 2970 2975
 His Ser Leu Asn Ile Arg Asn Val His Phe Gly Asp Ala Ala Asp Tyr
 2980 2985 2990
 Thr Phe Val Ala Gly Lys Ala Thr Ser Thr Ala Thr Leu Tyr Val Glu
 2995 3000 3005
 Ala Arg His Ile Glu Phe Arg Lys His Ile Lys Asp Ile Lys Val Leu
 3010 3015 3020
 Glu Lys Lys Arg Ala Met Phe Glu Cys Glu Val Ser Glu Pro Asp Ile
 3025 3030 3035 3040
 Thr Val Gln Trp Met Lys Asp Asp Gln Glu Leu Gln Ile Thr Asp Arg
 3045 3050 3055
 Ile Lys Ile Gln Lys Glu Lys Tyr Val His Arg Leu Leu Ile Pro Ser
 3060 3065 3070
 Thr Arg Met Ser Asp Ala Gly Lys Tyr Thr Val Val Ala Gly Gly Asn
 3075 3080 3085
 Val Ser Thr Ala Lys Leu Phe Val Glu Gly Arg Asp Val Arg Ile Arg
 3090 3095 3100
 Ser Ile Lys Lys Glu Val Gln Val Ile Glu Lys Gln Arg Ala Val Val
 3105 3110 3115 3120
 Glu Phe Glu Val Asn Glu Asp Asp Val Asp Ala His Trp Tyr Lys Asp
 3125 3130 3135
 Gly Ile Glu Ile Asn Phe Gln Val Gln Glu Arg His Lys Tyr Val Val
 3140 3145 3150
 Glu Arg Arg Ile His Arg Met Phe Ile Ser Glu Thr Arg Gln Ser Asp
 3155 3160 3165
 Ala Gly Glu Tyr Thr Phe Val Ala Gly Arg Asn Arg Ser Ser Val Thr
 3170 3175 3180
 Leu Tyr Val Asn Ala Pro Glu Pro Pro Gln Val Leu Gln Glu Leu Gln
 3185 3190 3195 3200
 Pro Val Thr Val Gln Ser Gly Lys Pro Ala Arg Phe Cys Ala Met Ile
 3205 3210 3215
 Ser Gly Arg Pro Gln Pro Lys Ile Ser Trp Tyr Lys Glu Glu Gln Leu
 3220 3225 3230
 Leu Ser Thr Gly Phe Lys Cys Lys Phe Leu His Asp Gly Gln Glu Tyr
 3235 3240 3245
 Thr Leu Leu Leu Ile Glu Ala Phe Pro Glu Asp Ala Ala Val Tyr Thr
 3250 3255 3260
 Cys Glu Ala Lys Asn Asp Tyr Gly Val Ala Thr Thr Ser Ala Ser Leu
 3265 3270 3275 3280
 Ser Val Glu Val Pro Glu Val Val Ser Pro Asp Gln Glu Met Pro Val
 3285 3290 3295
 Tyr Pro Pro Ala Ile Ile Thr Pro Leu Gln Asp Thr Val Thr Ser Glu
 3300 3305 3310
 Gly Gln Pro Ala Arg Phe Gln Cys Arg Val Ser Gly Thr Asp Leu Lys
 3315 3320 3325
 Val Ser Trp Tyr Ser Lys Asp Lys Lys Ile Lys Pro Ser Arg Phe Phe
 3330 3335 3340
 Arg Met Thr Gln Phe Glu Asp Thr Tyr Gln Leu Glu Ile Ala Glu Ala
 3345 3350 3355 3360
 Tyr Pro Glu Asp Glu Gly Thr Tyr Thr Phe Val Ala Asn Asn Ala Val
 3365 3370 3375
 Gly Gln Val Ser Ser Thr Ala Asn Leu Ser Leu Glu Ala Pro Glu Ser
 3380 3385 3390
 Ile Leu His Glu Arg Ile Glu Gln Glu Ile Glu Met Glu Met Lys Glu

-32-

Leu Lys Glu Lys Thr Val Ser Asp Thr Asn Arg Glu Gln Arg Val Thr
 3875 3880 3885
 Leu Gln Lys Gln Glu Ala Gln Ser Ala Leu Ile Leu Ser Gln Ser Leu
 3890 3895 3900
 Ala Glu Gly His Val Glu Ser Leu Gln Ser Pro Asp Val Met Ile Ser
 3905 3910 3915 3920
 Gln Val Asn Tyr Glu Pro Leu Val Pro Ser Glu His Ser Cys Thr Glu
 3925 3930 3935
 Gly Gly Lys Ile Leu Ile Glu Ser Ala Asn Pro Leu Glu Asn Ala Gly
 3940 3945 3950
 Gln Asp Ser Ala Val Arg Ile Glu Glu Gly Lys Ser Leu Arg Phe Pro
 3955 3960 3965
 Leu Ala Leu Glu Glu Lys Gln Val Leu Leu Lys Glu Glu His Ser Asp
 3970 3975 3980
 Asn Val Val Met Pro Pro Asp Gln Ile Ile Glu Ser Lys Arg Glu Pro
 3985 3990 3995 4000
 Val Ala Ile Lys Lys Val Gln Glu Val Gln Gly Arg Asp Leu Leu Ser
 4005 4010 4015
 Lys Glu Ser Leu Leu Ser Gly Ile Pro Glu Glu Gln Arg Leu Asn Leu
 4020 4025 4030
 Lys Ile Gln Ile Cys Arg Ala Leu Gln Ala Ala Val Ala Ser Glu Gln
 4035 4040 4045
 Pro Gly Leu Phe Ser Glu Trp Leu Arg Asn Ile Glu Lys Val Glu Val
 4050 4055 4060
 Glu Ala Val Asn Ile Thr Gln Glu Pro Arg His Ile Met Cys Met Tyr
 4065 4070 4075 4080
 Leu Val Thr Ser Ala Lys Ser Val Thr Glu Glu Val Thr Ile Ile Ile
 4085 4090 4095
 Glu Asp Val Asp Pro Gln Met Ala Asn Leu Lys Met Glu Leu Arg Asp
 4100 4105 4110
 Ala Leu Cys Ala Ile Ile Tyr Glu Glu Ile Asp Ile Leu Thr Ala Glu
 4115 4120 4125
 Gly Pro Arg Ile Gln Gln Gly Ala Lys Thr Ser Leu Gln Glu Glu Met
 4130 4135 4140
 Asp Ser Phe Ser Gly Ser Gln Lys Val Glu Pro Ile Thr Glu Pro Glu
 4145 4150 4155 4160
 Val Glu Ser Lys Tyr Leu Ile Ser Thr Glu Glu Val Ser Tyr Phe Asn
 4165 4170 4175
 Val Gln Ser Arg Val Lys Tyr Leu Asp Ala Thr Pro Val Thr Lys Gly
 4180 4185 4190
 Val Ala Ser Ala Val Val Ser Asp Glu Lys Gln Asp Glu Ser Leu Lys
 4195 4200 4205
 Pro Ser Glu Glu Lys Glu Glu Ser Ser Ser Glu Ser Gly Thr Glu Glu
 4210 4215 4220
 Val Ala Thr Val Lys Ile Gln Glu Ala Glu Gly Gly Leu Ile Lys Glu
 4225 4230 4235 4240
 Asp Gly Pro Met Ile His Thr Pro Leu Val Asp Thr Val Ser Glu Glu
 4245 4250 4255
 Gly Asp Ile Val His Leu Thr Thr Ser Ile Thr Asn Ala Lys Glu Val
 4260 4265 4270
 Asn Trp Tyr Phe Glu Asn Lys Leu Val Pro Ser Asp Glu Lys Phe Lys
 4275 4280 4285
 Cys Leu Gln Asp Gln Asn Thr Tyr Thr Leu Val Ile Asp Lys Val Asn
 4290 4295 4300
 Thr Glu Asp His Gln Gly Glu Tyr Val Cys Glu Ala Leu Asn Asp Ser
 4305 4310 4315 4320
 Gly Lys Thr Ala Thr Ser Ala Lys Leu Thr Val Val Lys Arg Ala Ala
 4325 4330 4335
 Pro Val Ile Lys Arg Lys Ile Glu Pro Leu Glu Val Ala Leu Gly His

Leu	Ala	Lys	Phe	Thr	Cys	Glu	Ile	Gln	Ser	Ala	Pro	Asn	Val	Arg	Phe	4340	4345	4350
																4355	4360	4365
Gln	Trp	Phe	Lys	Ala	Gly	Arg	Glu	Ile	Tyr	Glu	Ser	Asp	Lys	Cys	Ser	4370	4375	4380
Ile	Arg	Ser	Ser	Lys	Tyr	Ile	Ser	Ser	Leu	Glu	Ile	Leu	Arg	Thr	Gln	4385	4390	4395
Val	Val	Asp	Cys	Gly	Glu	Tyr	Thr	Cys	Lys	Ala	Ser	Asn	Glu	Tyr	Gly	4405	4410	4415
Ser	Val	Ser	Cys	Thr	Ala	Thr	Leu	Thr	Val	Thr	Val	Pro	Gly	Gly	Glu	4420	4425	4430
Lys	Lys	Val	Arg	Lys	Leu	Leu	Pro	Glu	Arg	Lys	Pro	Glu	Pro	Lys	Glu	4435	4440	4445
Glu	Val	Val	Leu	Lys	Ser	Val	Leu	Arg	Lys	Arg	Pro	Glu	Glu	Glu	Glu	4450	4455	4460
Pro	Lys	Val	Glu	Pro	Lys	Lys	Leu	Glu	Lys	Val	Lys	Lys	Pro	Ala	Val	4465	4470	4475
Pro	Glu	Pro	Pro	Pro	Pro	Lys	Pro	Val	Glu	Glu	Val	Glu	Val	Pro	Thr	4485	4490	4495
Val	Thr	Lys	Arg	Glu	Arg	Lys	Ile	Pro	Glu	Pro	Thr	Lys	Val	Pro	Glu	4500	4505	4510
Ile	Lys	Pro	Ala	Ile	Pro	Leu	Pro	Ala	Pro	Glu	Pro	Lys	Pro	Lys	Pro	4515	4520	4525
Glu	Ala	Glu	Val	Lys	Thr	Ile	Lys	Pro	Pro	Pro	Val	Glu	Pro	Glu	Pro	4530	4535	4540
Thr	Pro	Ile	Ala	Ala	Pro	Val	Thr	Val	Pro	Val	Val	Gly	Lys	Lys	Ala	4545	4550	4555
Glu	Ala	Lys	Ala	Pro	Lys	Glu	Glu	Ala	Ala	Lys	Pro	Lys	Gly	Pro	Ile	4565	4570	4575
Lys	Gly	Val	Pro	Lys	Lys	Thr	Pro	Ser	Pro	Ile	Glu	Ala	Glu	Arg	Arg	4580	4585	4590
Lys	Leu	Arg	Pro	Gly	Ser	Gly	Gly	Glu	Lys	Pro	Pro	Asp	Glu	Ala	Pro	4595	4600	4605
Phe	Thr	Tyr	Gln	Leu	Lys	Ala	Val	Pro	Leu	Lys	Phe	Val	Lys	Glu	Ile	4610	4615	4620
Lys	Asp	Ile	Ile	Leu	Thr	Glu	Ser	Glu	Phe	Val	Gly	Ser	Ser	Ala	Ile	4625	4630	4635
Phe	Glu	Cys	Leu	Val	Ser	Pro	Ser	Thr	Ala	Ile	Thr	Thr	Trp	Met	Lys	4645	4650	4655
Asp	Gly	Ser	Asn	Ile	Arg	Glu	Ser	Pro	Lys	His	Arg	Phe	Ile	Ala	Asp	4660	4665	4670
Gly	Lys	Asp	Arg	Lys	Leu	His	Ile	Ile	Asp	Val	Gln	Leu	Ser	Asp	Ala	4675	4680	4685
Gly	Glu	Tyr	Thr	Cys	Val	Leu	Arg	Leu	Gly	Asn	Lys	Glu	Lys	Thr	Ser	4690	4695	4700
Thr	Ala	Lys	Leu	Val	Val	Glu	Glu	Leu	Pro	Val	Arg	Phe	Val	Lys	Thr	4705	4710	4715
Leu	Glu	Glu	Glu	Val	Thr	Val	Val	Lys	Gly	Gln	Pro	Leu	Tyr	Leu	Ser	4725	4730	4735
Cys	Glu	Leu	Asn	Lys	Glu	Arg	Asp	Val	Val	Trp	Arg	Lys	Asp	Gly	Lys	4740	4745	4750
Ile	Val	Val	Glu	Lys	Pro	Gly	Arg	Ile	Val	Pro	Gly	Val	Ile	Gly	Leu	4755	4760	4765
Met	Arg	Ala	Leu	Thr	Ile	Asn	Asp	Ala	Asp	Asp	Thr	Asp	Ala	Gly	Thr	4770	4775	4780
Tyr	Thr	Val	Thr	Val	Glu	Asn	Ala	Asn	Asn	Leu	Glu	Cys	Ser	Ser	Cys	4785	4790	4795
Val	Lys	Val	Val	Glu	Val	Ile	Arg	Asp	Trp	Leu	Val	Lys	Pro	Ile	Arg	4805	4810	4815

Asp Gln His Val Lys Pro Lys Gly Thr Ala Ile Phe Ala Cys Asp Ile
 4820 4825 4830
 Ala Lys Asp Thr Pro Asn Ile Lys Trp Phe Lys Gly Tyr Asp Glu Ile
 4835 4840 4845
 Pro Ala Glu Pro Asn Asp Lys Thr Glu Ile Leu Arg Asp Gly Asn His
 4850 4855 4860
 Leu Tyr Leu Lys Ile Lys Asn Ala Met Pro Glu Asp Ile Ala Glu Tyr
 4865 4870 4875 4880
 Ala Val Glu Ile Glu Gly Lys Arg Tyr Pro Ala Lys Leu Thr Leu Gly
 4885 4890 4895
 Glu Arg Glu Val Glu Leu Leu Lys Pro Ile Glu Asp Val Thr Ile Tyr
 4900 4905 4910
 Glu Lys Glu Ser Ala Ser Phe Asp Ala Glu Ile Ser Glu Ala Asp Ile
 4915 4920 4925
 Pro Gly Gln Trp Lys Leu Lys Gly Glu Leu Leu Arg Pro Ser Pro Thr
 4930 4935 4940
 Cys Glu Ile Lys Ala Glu Gly Gly Lys Arg Phe Leu Thr Leu His Lys
 4945 4950 4955 4960
 Val Lys Leu Asp Gln Ala Gly Glu Val Leu Tyr Gln Ala Leu Asn Ala
 4965 4970 4975
 Ile Thr Thr Ala Ile Leu Thr Val Lys Glu Ile Glu Leu Asp Phe Ala
 4980 4985 4990
 Val Pro Leu Lys Asp Val Thr Val Pro Glu Arg Arg Gln Ala Arg Phe
 4995 5000 5005
 Glu Cys Val Leu Thr Arg Glu Ala Asn Val Ile Trp Ser Lys Gly Pro
 5010 5015 5020
 Asp Ile Ile Lys Ser Ser Asp Lys Phe Asp Ile Ile Ala Asp Gly Lys
 5025 5030 5035 5040
 Lys His Ile Leu Val Ile Asn Asp Ser Gln Phe Asp Asp Glu Gly Val
 5045 5050 5055
 Tyr Thr Ala Glu Val Glu Gly Lys Lys Thr Ser Ala Arg Leu Phe Val
 5060 5065 5070
 Thr Gly Ile Arg Leu Lys Phe Met Ser Pro Leu Glu Asp Gln Thr Val
 5075 5080 5085
 Lys Glu Gly Glu Thr Ala Thr Phe Val Cys Glu Leu Ser His Glu Lys
 5090 5095 5100
 Met His Val Val Trp Phe Lys Asn Asp Ala Lys Leu His Thr Ser Arg
 5105 5110 5115 5120
 Thr Val Leu Ile Ser Ser Glu Gly Lys Thr His Lys Leu Glu Met Lys
 5125 5130 5135
 Glu Val Thr Leu Asp Asp Ile Ser Gln Ile Lys Ala Gln Val Lys Glu
 5140 5145 5150
 Leu Ser Ser Thr Ala Gln Leu Lys Val Leu Glu Ala Asp Pro Tyr Phe
 5155 5160 5165
 Thr Val Lys Leu His Asp Lys Thr Ala Val Glu Lys Asp Glu Ile Thr
 5170 5175 5180
 Leu Lys Cys Glu Val Ser Lys Asp Val Pro Val Lys Trp Phe Lys Asp
 5185 5190 5195 5200
 Gly Glu Glu Ile Val Pro Ser Pro Lys Tyr Ser Ile Lys Ala Asp Gly
 5205 5210 5215
 Leu Arg Arg Ile Leu Lys Ile Lys Lys Ala Asp Leu Lys Asp Lys Gly
 5220 5225 5230
 Glu Tyr Val Cys Asp Cys Gly Thr Asp Lys Thr Lys Ala Asn Val Thr
 5235 5240 5245
 Val Glu Ala Arg Leu Ile Glu Val Glu Lys Pro Leu Tyr Gly Val Glu
 5250 5255 5260
 Val Phe Val Gly Glu Thr Ala His Phe Glu Ile Glu Leu Ser Glu Pro
 5265 5270 5275 5280
 Asp Val His Gly Gln Trp Lys Leu Lys Gly Gln Pro Leu Thr Ala Ser

Pro	Asp	Cys	Glu	Ile	Ile	Glu	Asp	Gly	Lys	Lys	His	Ile	Leu	Ile	Leu	5285	5290	5295
			5300					5305					5310					
His	Asn	Cys	Gln	Leu	Gly	Met	Thr	Gly	Glu	Val	Ser	Phe	Gln	Ala	Ala			
		5315					5320					5325						
Asn	Ala	Lys	Ser	Ala	Ala	Asn	Leu	Lys	Val	Lys	Glu	Leu	Pro	Leu	Ile			
		5330				5335					5340							
Phe	Ile	Thr	Pro	Leu	Ser	Asp	Val	Lys	Val	Phe	Glu	Lys	Asp	Glu	Ala			
5345					5350					5355				5360				
Lys	Phe	Glu	Cys	Glu	Val	Ser	Arg	Glu	Pro	Lys	Thr	Phe	Arg	Trp	Leu			
			5365					5370						5375				
Lys	Gly	Thr	Gln	Glu	Ile	Thr	Gly	Asp	Asp	Arg	Phe	Glu	Leu	Ile	Lys			
			5380					5385					5390					
Asp	Gly	Thr	Lys	His	Ser	Met	Val	Ile	Lys	Ser	Ala	Ala	Phe	Glu	Asp			
		5395					5400					5405						
Glu	Ala	Lys	Tyr	Met	Phe	Glu	Ala	Glu	Asp	Lys	His	Thr	Ser	Gly	Lys			
		5410				5415					5420							
Leu	Ile	Ile	Glu	Gly	Ile	Arg	Leu	Lys	Phe	Leu	Thr	Pro	Leu	Lys	Asp			
5425					5430					5435				5440				
Val	Thr	Ala	Lys	Glu	Lys	Glu	Ser	Ala	Val	Phe	Thr	Val	Glu	Leu	Ser			
			5445					5450						5455				
His	Asp	Asn	Ile	Arg	Val	Lys	Trp	Phe	Lys	Asn	Asp	Gln	Arg	Leu	His			
		5460						5465					5470					
Thr	Thr	Arg	Ser	Val	Ser	Met	Gln	Asp	Glu	Gly	Lys	Thr	His	Ser	Ile			
		5475					5480						5485					
Thr	Phe	Lys	Asp	Leu	Ser	Ile	Asp	Asp	Thr	Ser	Gln	Ile	Arg	Val	Glu			
		5490				5495					5500							
Ala	Met	Gly	Met	Ser	Ser	Glu	Ala	Lys	Leu	Thr	Val	Leu	Glu	Gly	Asp			
5505					5510					5515				5520				
Pro	Tyr	Phe	Thr	Gly	Lys	Leu	Gln	Asp	Tyr	Thr	Gly	Val	Glu	Lys	Asp			
			5525					5530						5535				
Glu	Val	Ile	Leu	Gln	Cys	Glu	Ile	Ser	Lys	Ala	Asp	Ala	Pro	Val	Lys			
			5540					5545					5550					
Trp	Phe	Lys	Asp	Gly	Lys	Glu	Ile	Lys	Pro	Ser	Lys	Asn	Ala	Val	Ile			
		5555				5560						5565						
Lys	Thr	Asp	Gly	Lys	Lys	Arg	Met	Leu	Ile	Leu	Lys	Lys	Ala	Leu	Lys			
		5570				5575					5580							
Ser	Asp	Ile	Gly	Gln	Tyr	Thr	Cys	Asp	Cys	Gly	Thr	Asp	Lys	Thr	Ser			
5585					5590					5595				5600				
Gly	Lys	Leu	Asp	Ile	Glu	Asp	Arg	Glu	Ile	Lys	Leu	Val	Arg	Pro	Leu			
			5605					5610						5615				
His	Ser	Val	Glu	Val	Met	Glu	Thr	Glu	Thr	Ala	Arg	Phe	Glu	Thr	Glu			
			5620					5625					5630					
Ile	Ser	Glu	Asp	Asp	Ile	His	Ala	Asn	Trp	Lys	Leu	Lys	Gly	Glu	Ala			
		5635					5640						5645					
Leu	Leu	Gln	Thr	Pro	Asp	Cys	Glu	Ile	Lys	Glu	Glu	Gly	Lys	Ile	His			
		5650				5655					5660							
Ser	Leu	Val	Leu	His	Asn	Cys	Arg	Leu	Asp	Gln	Thr	Gly	Gly	Val	Asp			
5665					5670					5675				5680				
Phe	Gln	Ala	Ala	Asn	Val	Lys	Ser	Ser	Ala	His	Leu	Arg	Val	Lys	Pro			
			5685					5690						5695				
Arg	Val	Ile	Gly	Leu	Leu	Arg	Pro	Leu	Lys	Asp	Val	Thr	Val	Thr	Ala			
			5700					5705						5710				
Gly	Glu	Thr	Ala	Thr	Phe	Asp	Cys	Glu	Leu	Ser	Tyr	Glu	Asp	Ile	Pro			
			5715				5720						5725					
Val	Glu	Trp	Tyr	Leu	Lys	Gly	Lys	Lys	Leu	Glu	Pro	Ser	Asp	Lys	Val			
		5730				5735					5740							
Val	Pro	Arg	Ser	Glu	Gly	Lys	Val	His	Thr	Leu	Thr	Leu	Arg	Asp	Val			
5745					5750					5755				5760				

Lys Leu Glu Asp Ala Gly Glu Val Gln Leu Thr Ala Lys Asp Phe Lys
 5765 5770 5775
 Thr His Ala Asn Leu Phe Val Lys Glu Pro Pro Val Glu Phe Thr Lys
 5780 5785 5790
 Pro Leu Glu Asp Gln Thr Val Glu Glu Gly Ala Thr Ala Val Leu Glu
 5795 5800 5805
 Cys Glu Val Ser Arg Glu Asn Ala Lys Val Lys Trp Phe Lys Asn Gly
 5810 5815 5820
 Thr Glu Ile Leu Lys Ser Lys Lys Tyr Glu Ile Val Ala Asp Gly Arg
 5825 5830 5835 5840
 Val Arg Lys Leu Val Ile His Asp Cys Thr Pro Glu Asp Ile Lys Thr
 5845 5850 5855
 Tyr Thr Cys Asp Ala Lys Asp Phe Lys Thr Ser Cys Asn Leu Asn Val
 5860 5865 5870
 Val Pro Pro His Val Glu Phe Leu Arg Pro Leu Thr Asp Leu Gln Val
 5875 5880 5885
 Arg Glu Lys Glu Met Ala Arg Phe Glu Cys Glu Leu Ser Arg Glu Asn
 5890 5895 5900
 Ala Lys Val Lys Trp Phe Lys Asp Gly Ala Glu Ile Lys Lys Gly Lys
 5905 5910 5915 5920
 Lys Tyr Asp Ile Ile Ser Lys Gly Ala Val Arg Ile Leu Val Ile Asn
 5925 5930 5935
 Lys Cys Leu Leu Asp Asp Glu Ala Glu Tyr Ser Cys Glu Val Arg Thr
 5940 5945 5950
 Ala Arg Thr Ser Gly Met Leu Thr Val Leu Glu Glu Glu Ala Val Phe
 5955 5960 5965
 Thr Lys Asn Leu Ala Asn Ile Glu Val Ser Glu Thr Asp Thr Ile Lys
 5970 5975 5980
 Leu Val Cys Glu Val Ser Lys Pro Gly Ala Glu Val Ile Trp Tyr Lys
 5985 5990 5995 6000
 Gly Asp Glu Glu Ile Ile Glu Thr Gly Arg Tyr Glu Ile Leu Thr Glu
 6005 6010 6015
 Gly Arg Lys Arg Ile Leu Val Ile Gln Asn Ala His Leu Glu Asp Ala
 6020 6025 6030
 Gly Asn Tyr Asn Cys Arg Leu Pro Ser Ser Arg Thr Asp Gly Lys Val
 6035 6040 6045
 Lys Val His Glu Leu Ala Ala Glu Phe Ile Ser Lys Pro Gln Asn Leu
 6050 6055 6060
 Glu Ile Leu Glu Gly Glu Lys Ala Glu Phe Val Cys Ser Ile Ser Lys
 6065 6070 6075 6080
 Glu Ser Phe Pro Val Gln Trp Lys Arg Asp Asp Lys Thr Leu Glu Ser
 6085 6090 6095
 Gly Asp Lys Tyr Asp Val Ile Ala Asp Gly Lys Lys Arg Val Leu Val
 6100 6105 6110
 Val Lys Asp Ala Thr Leu Gln Asp Met Gly Thr Tyr Val Val Met Val
 6115 6120 6125
 Gly Ala Ala Arg Ala Ala Ala His Leu Thr Val Ile Glu Lys Leu Arg
 6130 6135 6140
 Ile Val Val Pro Leu Lys Asp Thr Arg Val Lys Glu Gln Gln Glu Val
 6145 6150 6155 6160
 Val Phe Asn Cys Glu Val Asn Thr Glu Gly Ala Lys Ala Lys Trp Phe
 6165 6170 6175
 Arg Asn Glu Glu Ala Ile Phe Asp Ser Ser Lys Tyr Ile Ile Leu Gln
 6180 6185 6190
 Lys Asp Leu Val Tyr Thr Leu Arg Ile Arg Asp Ala His Leu Asp Asp
 6195 6200 6205
 Gln Ala Asn Tyr Asn Val Ser Leu Thr Asn His Arg Gly Glu Asn Val
 6210 6215 6220
 Lys Ser Ala Ala Asn Leu Ile Val Glu Glu Glu Asp Leu Arg Ile Val

6225		6230		6235		6240
Glu Pro Leu Lys Asp Ile Glu Thr Met Glu Lys Lys Ser Val Thr Phe						
	6245		6250		6255	
Trp Cys Lys Val Asn Arg Leu Asn Val Thr Leu Lys Trp Thr Lys Asn						
	6260		6265		6270	
Gly Glu Glu Val Pro Phe Asp Asn Arg Val Ser Tyr Arg Val Asp Lys						
	6275		6280		6285	
Tyr Lys His Met Leu Thr Ile Lys Asp Cys Gly Phe Pro Asp Glu Gly						
	6290		6295		6300	
Glu Tyr Ile Val Thr Ala Gly Gln Asp Lys Ser Val Ala Glu Leu Leu						
6305		6310		6315		6320
Ile Ile Glu Ala Pro Thr Glu Phe Val Glu His Leu Glu Asp Gln Thr						
	6325		6330		6335	
Val Thr Glu Phe Asp Asp Ala Val Phe Ser Cys Gln Leu Ser Arg Glu						
	6340		6345		6350	
Lys Ala Asn Val Lys Trp Tyr Arg Asn Gly Arg Glu Ile Lys Glu Gly						
	6355		6360		6365	
Lys Lys Tyr Lys Phe Glu Lys Asp Gly Ser Ile His Arg Leu Ile Ile						
	6370		6375		6380	
Lys Asp Cys Arg Leu Asp Asp Glu Cys Glu Tyr Ala Cys Gly Val Glu						
6385		6390		6395		6400
Asp Arg Lys Ser Arg Ala Arg Leu Phe Val Glu Glu Ile Pro Val Glu						
	6405		6410		6415	
Ile Ile Arg Pro Pro Gln Asp Ile Leu Glu Ala Pro Gly Ala Asp Val						
	6420		6425		6430	
Val Phe Leu Ala Glu Leu Asn Lys Asp Lys Val Glu Val Gln Trp Leu						
	6435		6440		6445	
Arg Asn Asn Met Val Val Val Gln Gly Asp Lys His Gln Met Met Ser						
	6450		6455		6460	
Glu Gly Lys Ile His Arg Leu Gln Ile Cys Asp Ile Lys Pro Arg Asp						
6465		6470		6475		6480
Gln Gly Glu Tyr Arg Phe Ile Ala Lys Asp Lys Glu Ala Arg Ala Lys						
	6485		6490		6495	
Leu Glu Leu Ala Ala Ala Pro Lys Ile Lys Thr Ala Asp Gln Asp Leu						
	6500		6505		6510	
Val Val Asp Val Gly Lys Pro Leu Thr Met Val Val Pro Tyr Asp Ala						
	6515		6520		6525	
Tyr Pro Lys Ala Glu Ala Glu Trp Phe Lys Glu Asn Glu Pro Leu Ser						
	6530		6535		6540	
Thr Lys Thr Ile Asp Thr Thr Ala Glu Gln Thr Ser Phe Arg Ile Leu						
6545		6550		6555		6560
Glu Ala Lys Lys Gly Asp Lys Gly Arg Tyr Lys Ile Val Leu Gln Asn						
	6565		6570		6575	
Lys His Gly Lys Ala Glu Gly Phe Ile Asn Leu Lys Val Ile Asp Val						
	6580		6585		6590	
Pro Gly Pro Val Arg Asn Leu Glu Val Thr Glu Thr Phe Asp Gly Glu						
	6595		6600		6605	
Val Ser Leu Ala Trp Glu Glu Pro Leu Thr Asp Gly Gly Ser Lys Ile						
	6610		6615		6620	
Ile Gly Tyr Val Val Glu Arg Arg Asp Ile Lys Arg Lys Thr Trp Val						
6625		6630		6635		6640
Leu Ala Thr Asp Arg Ala Glu Ser Cys Glu Phe Thr Val Thr Gly Leu						
	6645		6650		6655	
Gln Lys Gly Gly Val Glu Tyr Leu Phe Arg Val Ser Ala Arg Asn Arg						
	6660		6665		6670	
Val Gly Thr Gly Glu Pro Val Glu Thr Asp Asn Pro Val Glu Ala Arg						
	6675		6680		6685	
Ser Lys Tyr Asp Val Pro Gly Pro Pro Leu Asn Val Thr Ile Thr Asp						
	6690		6695		6700	

Val	Asn	Arg	Phe	Gly	Val	Ser	Leu	Thr	Trp	Glu	Pro	Pro	Glu	Tyr	Asp		
6705					6710					6715					6720		
Gly	Gly	Ala	Glu	Ile	Thr	Asn	Tyr	Val	Ile	Glu	Leu	Arg	Asp	Lys	Thr		
				6725					6730					6735			
Ser	Ile	Arg	Trp	Asp	Thr	Ala	Met	Thr	Val	Arg	Ala	Glu	Asp	Leu	Ser		
			6740					6745					6750				
Ala	Thr	Val	Thr	Asp	Val	Val	Glu	Gly	Gln	Glu	Tyr	Ser	Phe	Arg	Val		
		6755					6760					6765					
Arg	Ala	Gln	Asn	Arg	Ile	Gly	Val	Gly	Lys	Pro	Ser	Ala	Ala	Thr	Pro		
	6770					6775				6780							
Phe	Val	Lys	Val	Ala	Asp	Pro	Ile	Glu	Arg	Pro	Ser	Pro	Pro	Val	Asn		
6785					6790					6795					6800		
Leu	Thr	Ser	Ser	Asp	Gln	Thr	Gln	Ser	Ser	Val	Gln	Leu	Lys	Trp	Glu		
				6805					6810					6815			
Pro	Pro	Leu	Lys	Asp	Gly	Gly	Ser	Pro	Ile	Leu	Gly	Tyr	Ile	Ile	Glu		
			6820					6825					6830				
Arg	Cys	Glu	Glu	Gly	Lys	Asp	Asn	Trp	Ile	Arg	Cys	Asn	Met	Lys	Leu		
		6835					6840					6845					
Val	Pro	Glu	Leu	Thr	Tyr	Lys	Val	Thr	Gly	Leu	Glu	Lys	Gly	Asn	Lys		
	6850					6855				6860							
Tyr	Leu	Tyr	Arg	Val	Ser	Ala	Glu	Asn	Lys	Ala	Gly	Val	Ser	Asp	Pro		
6865					6870					6875				6880			
Ser	Glu	Ile	Leu	Gly	Pro	Leu	Thr	Ala	Asp	Ala	Phe	Val	Glu	Pro			
				6885					6890					6895			
Thr	Met	Asp	Leu	Ser	Ala	Phe	Lys	Asp	Gly	Leu	Glu	Val	Ile	Val	Pro		
			6900					6905					6910				
Asn	Pro	Ile	Thr	Ile	Leu	Val	Pro	Ser	Thr	Gly	Tyr	Pro	Arg	Pro	Thr		
		6915					6920					6925					
Ala	Thr	Trp	Cys	Phe	Gly	Asp	Lys	Val	Leu	Glu	Thr	Gly	Asp	Arg	Val		
	6930					6935					6940						
Lys	Met	Lys	Thr	Leu	Ser	Ala	Tyr	Ala	Glu	Leu	Val	Ile	Ser	Pro	Ser		
6945					6950					6955				6960			
Glu	Arg	Ser	Asp	Lys	Gly	Ile	Tyr	Thr	Leu	Lys	Leu	Glu	Asn	Arg	Val		
				6965					6970					6975			
Lys	Thr	Ile	Ser	Gly	Glu	Ile	Asp	Val	Asn	Val	Ile	Ala	Arg	Pro	Ser		
			6980					6985					6990				
Ala	Pro	Lys	Glu	Leu	Lys	Phe	Gly	Asp	Ile	Thr	Lys	Asp	Ser	Val	His		
	6995						7000					7005					
Leu	Thr	Trp	Glu	Pro	Pro	Asp	Asp	Gly	Gly	Ser	Pro	Leu	Thr	Gly			
	7010					7015				7020							
Tyr	Val	Val	Glu	Lys	Arg	Glu	Val	Ser	Arg	Lys	Thr	Trp	Thr	Lys	Val		
7025					7030					7035				7040			
Met	Asp	Phe	Val	Thr	Asp	Leu	Glu	Phe	Thr	Val	Pro	Asp	Leu	Val	Gln		
				7045					7050					7055			
Gly	Lys	Glu	Tyr	Leu	Phe	Lys	Val	Cys	Ala	Arg	Asn	Lys	Cys	Gly	Pro		
			7060					7065					7070				
Gly	Glu	Pro	Ala	Tyr	Val	Asp	Glu	Pro	Val	Asn	Met	Ser	Thr	Pro	Ala		
	7075						7080					7085					
Thr	Val	Pro	Asp	Pro	Pro	Glu	Asn	Val	Lys	Trp	Arg	Asp	Arg	Thr	Ala		
	7090					7095					7100						
Asn	Ser	Ile	Phe	Leu	Thr	Trp	Asp	Pro	Pro	Lys	Asn	Asp	Gly	Gly	Ser		
7105					7110					7115				7120			
Arg	Ile	Lys	Gly	Tyr	Ile	Val	Glu	Arg	Cys	Pro	Arg	Gly	Ser	Asp	Lys		
				7125					7130					7135			
Trp	Val	Ala	Cys	Gly	Glu	Pro	Val	Ala	Glu	Thr	Lys	Met	Glu	Val	Thr		
		7140						7145					7150				
Gly	Leu	Glu	Gly	Lys	Trp	Tyr	Ala	Tyr	Arg	Val	Lys	Thr	Leu	Asn			
	7155					7160					7165						
Arg	Gln	Gly	Ala	Ser	Lys	Pro	Ser	Arg	Pro	Thr	Glu	Glu	Ile	Gln	Ala		

7170	7175	7180
Val Asp Thr Gln Glu Ala Pro Glu Ile Phe Leu Asp Val Lys Leu Leu		
7185	7190	7195
Ala Gly Leu Thr Val Lys Ala Gly Thr Lys Ile Glu Leu Pro Ala Thr		7200
	7205	7210
Val Thr Gly Lys Pro Glu Pro Lys Ile Thr Trp Thr Lys Ala Asp Met		7215
	7220	7225
Ile Leu Lys Gln Asp Lys Arg Ile Thr Ile Glu Asn Val Pro Lys Lys		7230
	7235	7240
Ser Thr Val Thr Ile Val Asp Ser Lys Arg Ser Asp Thr Gly Thr Tyr		7245
	7250	7255
Ile Ile Glu Ala Val Asn Val Cys Gly Arg Ala Thr Ala Val Val Glu		7260
7265	7270	7275
Val Asn Val Leu Asp Lys Pro Gly Pro Pro Ala Ala Phe Asp Ile Thr		7280
	7285	7290
Asp Val Thr Asn Glu Ser Cys Leu Leu Thr Trp Asn Pro Pro Arg Asp		7295
	7300	7305
Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Val Glu Arg Arg Ala Thr		7310
	7315	7320
Asp Ser Glu Val Trp His Lys Leu Ser Ser Thr Val Lys Asp Thr Asn		7325
	7330	7335
Phe Lys Ala Thr Lys Leu Ile Pro Asn Lys Glu Tyr Ile Phe Arg Val		7340
7345	7350	7355
Ala Ala Glu Asn Met Tyr Gly Ala Gly Glu Pro Val Gln Ala Ser Pro		7360
	7365	7370
Ile Thr Ala Lys Tyr Gln Phe Asp Pro Pro Gly Pro Pro Thr Arg Leu		7375
	7380	7385
Glu Pro Ser Asp Ile Thr Lys Asp Ala Val Thr Leu Thr Trp Cys Glu		7390
	7395	7400
Pro Asp Asp Asp Gly Gly Ser Pro Ile Thr Gly Tyr Trp Val Glu Arg		7405
	7410	7415
Leu Asp Pro Asp Thr Asp Lys Trp Val Arg Cys Asn Lys Met Pro Val		7420
7425	7430	7435
Lys Asp Thr Thr Tyr Arg Val Lys Gly Leu Thr Asn Lys Lys Lys Tyr		7440
	7445	7450
Arg Phe Arg Val Leu Ala Glu Asn Leu Ala Gly Pro Gly Lys Pro Ser		7455
	7460	7465
Lys Ser Thr Glu Pro Ile Leu Ile Lys Asp Pro Ile Asp Pro Pro Trp		7470
	7475	7480
Pro Pro Gly Lys Pro Thr Val Lys Asp Val Gly Lys Thr Ser Val Arg		7485
	7490	7495
Leu Asn Trp Thr Lys Pro Glu His Asp Gly Gly Ala Lys Ile Glu Ser		7500
7505	7510	7515
Tyr Val Ile Glu Met Leu Lys Thr Gly Thr Asp Glu Trp Val Arg Val		7520
	7525	7530
Ala Glu Gly Val Pro Thr Thr Gln His Leu Leu Pro Gly Leu Met Glu		7535
	7540	7545
Gly Gln Glu Tyr Ser Phe Arg Val Arg Ala Val Asn Lys Ala Gly Glu		7550
	7555	7560
Ser Glu Pro Ser Glu Pro Ser Asp Pro Val Leu Cys Arg Glu Lys Leu		7565
	7570	7575
Tyr Pro Pro Ser Pro Pro Arg Trp Leu Glu Val Ile Asn Ile Thr Lys		7580
7585	7590	7595
Asn Thr Ala Asp Leu Lys Trp Thr Val Pro Glu Lys Asp Gly Gly Ser		7600
	7605	7610
Pro Ile Thr Asn Tyr Ile Val Glu Lys Arg Asp Val Arg Arg Lys Gly		7615
	7620	7625
Trp Gln Thr Val Asp Thr Thr Val Lys Asp Thr Lys Cys Thr Val Thr		7630
	7635	7640
		7645

Pro Leu Thr Glu Gly Ser Leu Tyr Val Phe Arg Val Ala Ala Glu Asn
 7650 7655 7660
 Ala Ile Gly Gln Ser Asp Tyr Thr Glu Ile Glu Asp Ser Val Leu Ala
 7665 7670 7675 7680
 Lys Asp Thr Phe Thr Thr Pro Gly Pro Pro Tyr Ala Leu Ala Val Val
 7685 7690 7695
 Asp Val Thr Lys Arg His Val Asp Leu Lys Trp Glu Pro Pro Lys Asn
 7700 7705 7710
 Asp Gly Gly Arg Pro Ile Gln Arg Tyr Val Ile Glu Lys Lys Glu Arg
 7715 7720 7725
 Leu Gly Thr Arg Trp Val Lys Ala Gly Lys Thr Ala Gly Pro Asp Cys
 7730 7735 7740
 Asn Phe Arg Val Thr Asp Val Ile Glu Gly Thr Glu Val Gln Phe Gln
 7745 7750 7755 7760
 Val Arg Ala Glu Asn Glu Ala Gly Val Gly His Pro Ser Glu Pro Thr
 7765 7770 7775
 Glu Ile Leu Ser Ile Glu Asp Pro Thr Ser Pro Pro Ser Pro Pro Leu
 7780 7785 7790
 Asp Leu His Val Thr Asp Ala Gly Arg Lys His Ile Ala Ile Ala Trp
 7795 7800 7805
 Lys Pro Pro Glu Lys Asn Gly Gly Ser Pro Ile Ile Gly Tyr His Val
 7810 7815 7820
 Glu Met Cys Pro Val Gly Thr Glu Lys Trp Met Arg Val Asn Ser Arg
 7825 7830 7835 7840
 Pro Ile Lys Asp Leu Lys Phe Lys Val Glu Glu Gly Val Val Pro Asp
 7845 7850 7855
 Lys Glu Tyr Val Leu Arg Val Arg Ala Val Asn Ala Ile Gly Val Ser
 7860 7865 7870
 Glu Pro Ser Glu Ile Ser Glu Asn Val Val Ala Lys Asp Pro Asp Cys
 7875 7880 7885
 Lys Pro Thr Ile Asp Leu Glu Thr His Asp Ile Ile Val Ile Glu Gly
 7890 7895 7900
 Glu Lys Leu Ser Ile Pro Val Pro Phe Arg Ala Val Pro Val Pro Thr
 7905 7910 7915 7920
 Val Ser Trp His Lys Asp Gly Lys Glu Val Lys Ala Ser Asp Arg Leu
 7925 7930 7935
 Thr Met Lys Asn Asp His Ile Ser Ala His Leu Glu Val Pro Lys Ser
 7940 7945 7950
 Val Arg Ala Asp Ala Gly Ile Tyr Thr Ile Thr Leu Glu Asn Lys Leu
 7955 7960 7965
 Gly Ser Ala Thr Ala Ser Ile Asn Val Lys Val Ile Gly Leu Pro Gly
 7970 7975 7980
 Pro Cys Lys Asp Ile Lys Ala Ser Asp Ile Thr Lys Ser Ser Cys Lys
 7985 7990 7995 8000
 Leu Thr Trp Glu Pro Pro Glu Phe Asp Gly Gly Thr Pro Ile Leu His
 8005 8010 8015
 Tyr Val Leu Glu Arg Arg Glu Ala Gly Arg Arg Thr Tyr Ile Pro Val
 8020 8025 8030
 Met Ser Gly Glu Asn Lys Leu Ser Trp Thr Val Lys Asp Leu Ile Pro
 8035 8040 8045
 Asn Gly Glu Tyr Phe Phe Arg Val Lys Ala Val Asn Lys Val Gly Gly
 8050 8055 8060
 Gly Glu Tyr Ile Glu Leu Lys Asn Pro Val Ile Ala Gln Asp Pro Lys
 8065 8070 8075 8080
 Gln Pro Pro Asp Pro Pro Val Asp Val Glu Val His Asn Pro Thr Ala
 8085 8090 8095
 Glu Ala Met Thr Ile Thr Trp Lys Pro Pro Leu Tyr Asp Gly Gly Ser
 8100 8105 8110
 Lys Ile Met Gly Tyr Ile Ile Glu Lys Ile Ala Lys Gly Glu Glu Arg

	8115					8120					8125				
Trp	Lys	Arg	Cys	Asn	Glu	His	Leu	Val	Pro	Ile	Leu	Thr	Tyr	Thr	Ala
	8130					8135					8140				
Lys	Gly	Leu	Glu	Glu	Gly	Lys	Glu	Tyr	Gln	Phe	Arg	Val	Arg	Ala	Glu
8145					8150					8155					8160
Asn	Ala	Ala	Gly	Ile	Ser	Glu	Pro	Ser	Arg	Ala	Thr	Pro	Pro	Thr	Lys
				8165					8170						8175
Ala	Val	Asp	Pro	Ile	Asp	Ala	Pro	Lys	Val	Ile	Leu	Arg	Thr	Ser	Leu
			8180					8185					8190		
Glu	Val	Lys	Arg	Gly	Asp	Glu	Ile	Ala	Leu	Asp	Ala	Ser	Ile	Ser	Gly
		8195				8200					8205				
Ser	Pro	Tyr	Pro	Thr	Ile	Thr	Trp	Ile	Lys	Asp	Glu	Asn	Val	Ile	Val
	8210					8215					8220				
Pro	Glu	Glu	Ile	Lys	Lys	Arg	Ala	Ala	Pro	Leu	Val	Arg	Arg	Arg	Lys
8225					8230					8235					8240
Gly	Glu	Val	Gln	Glu	Glu	Glu	Pro	Phe	Val	Leu	Pro	Leu	Thr	Gln	Arg
			8245					8250							8255
Leu	Ser	Ile	Asp	Asn	Ser	Lys	Lys	Gly	Glu	Ser	Gln	Leu	Arg	Val	Arg
			8260					8265					8270		
Asp	Ser	Leu	Arg	Pro	Asp	His	Gly	Leu	Tyr	Met	Ile	Lys	Val	Glu	Asn
		8275					8280					8285			
Asp	His	Gly	Ile	Ala	Lys	Ala	Pro	Cys	Thr	Val	Ser	Val	Leu	Asp	Thr
	8290					8295					8300				
Pro	Gly	Pro	Pro	Ile	Asn	Phe	Val	Phe	Glu	Asp	Ile	Arg	Lys	Thr	Ser
8305					8310					8315					8320
Val	Leu	Cys	Lys	Trp	Glu	Pro	Pro	Leu	Asp	Asp	Gly	Gly	Ser	Glu	Ile
			8325						8330						8335
Ile	Asn	Tyr	Thr	Leu	Glu	Lys	Lys	Asp	Lys	Thr	Lys	Pro	Asp	Ser	Glu
			8340					8345					8350		
Trp	Ile	Val	Val	Thr	Ser	Thr	Leu	Arg	His	Cys	Lys	Tyr	Ser	Val	Thr
	8355						8360					8365			
Lys	Leu	Ile	Glu	Gly	Lys	Glu	Tyr	Leu	Phe	Arg	Val	Arg	Ala	Glu	Asn
	8370					8375					8380				
Arg	Phe	Gly	Pro	Gly	Pro	Pro	Cys	Val	Ser	Lys	Pro	Leu	Val	Ala	Lys
8385					8390					8395					8400
Asp	Pro	Phe	Gly	Pro	Pro	Asp	Ala	Pro	Asp	Lys	Pro	Ile	Val	Glu	Asp
			8405						8410					8415	
Val	Thr	Ser	Asn	Ser	Met	Leu	Val	Lys	Trp	Asn	Glu	Pro	Lys	Asp	Asn
			8420					8425					8430		
Gly	Ser	Pro	Ile	Leu	Gly	Tyr	Trp	Leu	Glu	Lys	Arg	Glu	Val	Asn	Ser
		8435					8440					8445			
Thr	His	Trp	Ser	Arg	Val	Asn	Lys	Ser	Leu	Leu	Asn	Ala	Leu	Lys	Ala
	8450					8455					8460				
Asn	Val	Asp	Gly	Leu	Leu	Glu	Gly	Leu	Thr	Tyr	Val	Phe	Arg	Val	Cys</

Thr Gln Pro Val Thr Val Ala Glu Pro Gln Glu Pro Pro Ala Val Glu
 8595 8600 8605
 Leu Asp Val Ser Val Lys Gly Gly Ile Gln Ile Met Ala Gly Lys Thr
 8610 8615 8620
 Leu Arg Ile Pro Ala Val Val Thr Gly Arg Pro Val Pro Thr Lys Val
 8625 8630 8635 8640
 Trp Thr Lys Glu Glu Gly Glu Leu Asp Lys Asp Arg Val Val Ile Asp
 8645 8650 8655
 Asn Val Gly Thr Lys Ser Glu Leu Ile Ile Lys Asp Ala Leu Arg Lys
 8660 8665 8670
 Asp His Gly Arg Tyr Val Ile Thr Ala Thr Asn Ser Cys Gly Ser Lys
 8675 8680 8685
 Phe Ala Ala Ala Arg Val Glu Val Phe Asp Val Pro Gly Pro Val Leu
 8690 8695 8700
 Asp Leu Lys Pro Val Val Thr Asn Arg Lys Met Cys Leu Leu Asn Trp
 8705 8710 8715 8720
 Ser Asp Pro Glu Asp Asp Gly Gly Ser Glu Ile Thr Gly Phe Ile Ile
 8725 8730 8735
 Glu Arg Lys Asp Ala Lys Met His Thr Trp Arg Gln Pro Ile Glu Thr
 8740 8745 8750
 Glu Arg Ser Lys Cys Asp Ile Thr Gly Leu Leu Glu Gly Gln Glu Tyr
 8755 8760 8765
 Lys Phe Arg Val Ile Ala Lys Asn Lys Phe Gly Cys Gly Pro Pro Val
 8770 8775 8780
 Glu Ile Gly Pro Ile Leu Ala Val Asp Pro Leu Gly Pro Pro Thr Ser
 8785 8790 8795 8800
 Pro Glu Arg Leu Thr Tyr Thr Glu Arg Gln Arg Ser Thr Ile Thr Leu
 8805 8810 8815
 Asp Trp Lys Glu Pro Arg Ser Asn Gly Gly Ser Pro Ile Gln Gly Tyr
 8820 8825 8830
 Ile Ile Glu Lys Arg Arg His Asp Lys Pro Asp Phe Glu Arg Val Asn
 8835 8840 8845
 Lys Arg Leu Cys Pro Thr Thr Ser Phe Leu Val Glu Asn Leu Asp Glu
 8850 8855 8860
 His Gln Met Tyr Glu Phe Arg Val Lys Ala Val Asn Glu Ile Gly Glu
 8865 8870 8875 8880
 Ser Glu Pro Ser Leu Pro Leu Asn Val Val Ile Gln Asp Asp Glu Val
 8885 8890 8895
 Pro Pro Thr Ile Lys Leu Arg Leu Ser Val Arg Gly Asp Thr Ile Lys
 8900 8905 8910
 Val Lys Ala Gly Glu Pro Val His Ile Pro Ala Asp Val Thr Gly Leu
 8915 8920 8925
 Pro Met Pro Lys Ile Glu Trp Ser Lys Asn Glu Thr Val Ile Glu Lys
 8930 8935 8940
 Pro Thr Asp Ala Leu Gln Ile Thr Lys Glu Glu Val Ser Arg Ser Glu
 8945 8950 8955 8960
 Ala Lys Thr Glu Leu Ser Ile Pro Lys Ala Val Arg Glu Asp Lys Gly
 8965 8970 8975
 Thr Tyr Thr Val Thr Ala Ser Asn Arg Leu Gly Ser Val Phe Arg Asn
 8980 8985 8990
 Val His Val Glu Val Tyr Asp Arg Pro Ser Pro Pro Arg Asn Leu Ala
 8995 9000 9005
 Val Thr Asp Ile Lys Ala Glu Ser Cys Tyr Leu Thr Trp Asp Ala Pro
 9010 9015 9020
 Leu Asp Asn Gly Gly Ser Glu Ile Thr His Tyr Val Ile Asp Lys Arg
 9025 9030 9035 9040
 Asp Ala Ser Arg Lys Lys Ala Glu Trp Glu Glu Val Thr Asn Thr Ala
 9045 9050 9055
 Val Glu Lys Arg Tyr Gly Ile Trp Lys Leu Ile Pro Asn Gly Gln Tyr

Pro Pro Lys Asn Asp Gly Gly Ser Pro Val Thr His Tyr Ile Val Glu
 9540 9545 9550
 Cys Leu Ala Trp Asp Pro Thr Gly Thr Lys Lys Glu Ala Trp Arg Gln
 9555 9560 9565
 Cys Asn Lys Arg Asp Val Glu Leu Gln Phe Thr Val Glu Asp Leu
 9570 9575 9580
 Val Glu Gly Gly Glu Tyr Glu Phe Arg Val Lys Ala Val Asn Ala Ala
 9585 9590 9595 9600
 Gly Val Ser Lys Pro Ser Ala Thr Val Gly Pro Cys Asp Cys Gln Arg
 9605 9610 9615
 Pro Asp Met Pro Pro Ser Ile Asp Leu Lys Glu Phe Met Glu Val Glu
 9620 9625 9630
 Glu Gly Thr Asn Val Asn Ile Val Ala Lys Ile Lys Gly Val Pro Phe
 9635 9640 9645
 Pro Thr Leu Thr Trp Phe Lys Ala Pro Pro Lys Lys Pro Asp Asn Lys
 9650 9655 9660
 Glu Pro Val Leu Tyr Asp Thr His Val Asn Lys Leu Val Val Asp Asp
 9665 9670 9675 9680
 Thr Cys Thr Leu Val Ile Pro Gln Ser Arg Arg Ser Asp Thr Gly Leu
 9685 9690 9695
 Tyr Thr Ile Thr Ala Val Asn Asn Leu Gly Thr Ala Ser Lys Glu Met
 9700 9705 9710
 Arg Leu Asn Val Leu Gly Arg Pro Gly Pro Pro Val Gly Pro Ile Lys
 9715 9720 9725
 Phe Glu Ser Val Ser Ala Asp Gln Met Thr Leu Ser Trp Phe Pro Pro
 9730 9735 9740
 Lys Asp Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Ile Glu Lys Arg
 9745 9750 9755 9760
 Glu Ala Asn Arg Lys Thr Trp Val His Val Ser Ser Glu Pro Lys Glu
 9765 9770 9775
 Cys Thr Tyr Thr Ile Pro Lys Leu Leu Glu Gly His Glu Tyr Val Phe
 9780 9785 9790
 Arg Ile Met Ala Gln Asn Lys Tyr Gly Ile Gly Glu Pro Leu Asp Ser
 9795 9800 9805
 Glu Pro Glu Thr Ala Arg Asn Leu Phe Ser Val Pro Gly Ala Pro Asp
 9810 9815 9820
 Lys Pro Thr Val Ser Ser Val Thr Arg Asn Ser Met Thr Val Asn Trp
 9825 9830 9835 9840
 Glu Glu Pro Glu Tyr Asp Gly Gly Ser Pro Val Thr Gly Tyr Trp Leu
 9845 9850 9855
 Glu Met Lys Asp Thr Thr Ser Lys Arg Trp Lys Arg Val Asn Arg Asp
 9860 9865 9870
 Pro Ile Lys Ala Met Thr Leu Gly Val Ser Tyr Lys Val Thr Gly Leu
 9875 9880 9885
 Ile Glu Gly Ser Asp Tyr Gln Phe Arg Val Tyr Ala Ile Asn Ala Ala
 9890 9895 9900
 Gly Val Gly Pro Ala Ser Leu Pro Ser Asp Pro Ala Thr Ala Arg Asp
 9905 9910 9915 9920
 Pro Ile Ala Pro Pro Gly Pro Pro Phe Pro Lys Val Thr Asp Trp Thr
 9925 9930 9935
 Lys Ser Ser Ala Asp Leu Glu Trp Ser Pro Pro Leu Lys Asp Gly Gly
 9940 9945 9950
 Ser Lys Val Thr Gly Tyr Ile Val Glu Tyr Lys Glu Glu Gly Lys Glu
 9955 9960 9965
 Glu Trp Glu Lys Gly Lys Asp Lys Glu Val Arg Gly Thr Lys Leu Val
 9970 9975 9980
 Val Thr Gly Leu Lys Glu Gly Ala Phe Tyr Lys Phe Arg Val Ser
 9985 9990 9995
 Ala Val Asn Ile Ala Gly Ile Gly Glu Pro Gly Glu Val Thr Asp

10000	Val Ile Glu Met Lys	10005	Asp Arg Leu Val Ser	10010	Pro Asp Leu Gln Leu
10015	Asp Ala Ser Val Arg	10020	Asp Arg Ile Val Val	10025	His Ala Gly Gly Val
10030	Ile Arg Ile Ile Ala	10035	Tyr Val Ser Gly Lys	10040	Pro Pro Pro Thr Val
10045	Thr Trp Asn Met Asn	10050	Glu Arg Thr Leu Pro	10055	Gln Glu Ala Thr Ile
10060	Glu Thr Thr Ala Ile	10065	Ser Ser Ser Met Val	10070	Ile Lys Asn Cys Gln
10075	Arg Ser His Gln Gly	10080	Val Tyr Ser Leu Leu	10085	Ala Lys Asn Glu Ala
10090	Gly Glu Arg Lys Lys	10095	Thr Ile Ile Val Asp	10100	Val Leu Asp Val Pro
10105	Gly Pro Val Gly Thr	10110	Pro Phe Leu Ala His	10115	Asn Leu Thr Asn Glu
10120	Ser Cys Lys Leu Thr	10125	Trp Phe Ser Pro Glu	10130	Asp Asp Gly Gly Ser
10135	Pro Ile Thr Asn Tyr	10140	Val Ile Glu Lys Arg	10145	Glu Ser Asp Arg Arg
10150	Ala Trp Thr Pro Val	10155	Thr Tyr Thr Val Thr	10160	Arg Gln Asn Ala Thr
10165	Val Gln Gly Leu Ile	10170	Gln Gly Lys Ala Tyr	10175	Phe Phe Arg Ile Ala
10180	Ala Glu Asn Ser Ile	10185	Gly Met Gly Pro Phe	10190	Val Glu Thr Ser Glu
10195	Ala Leu Val Ile Arg	10200	Glu Pro Ile Thr Val	10205	Pro Glu Arg Pro Glu
10210	Asp Leu Glu Val Lys	10215	Glu Val Thr Lys Asn	10220	Thr Val Thr Leu Thr
10225	Trp Asn Pro Pro Lys	10230	Tyr Asp Gly Gly Ser	10235	Glu Ile Ile Asn Tyr
10240	Val Leu Glu Ser Arg	10245	Leu Ile Gly Thr Glu	10250	Lys Phe His Lys Val
10255	Thr Asn Asp Asn Leu	10260	Leu Ser Arg Lys Tyr	10265	Thr Val Lys Gly Leu
10270	Lys Glu Gly Asp Thr	10275	Tyr Glu Tyr Arg Val	10280	Ser Ala Val Asn Ile
10285	Val Gly Gln Gly Lys	10290	Pro Ser Phe Cys Thr	10295	Lys Pro Ile Thr Cys
10300	Lys Asp Glu Leu Ala	10305	Pro Pro Thr Leu His	10310	Leu Asp Phe Arg Asp
10315	Lys Leu Thr Ile Arg	10320	Val Gly Glu Ala Phe	10325	Ala Leu Thr Gly Arg
10330	Tyr Ser Gly Lys Pro	10335	Lys Pro Lys Val Ser	10340	Trp Phe Lys Asp Glu
10345	Ala Asp Val Leu Glu	10350	Asp Asp Arg Thr His	10355	Ile Lys Thr Thr Pro
10360	Ala Thr Leu Ala Leu	10365	Glu Lys Ile Lys Ala	10370	Lys Arg Ser Asp Ser
10375	Gly Lys Tyr Cys Val	10380	Val Val Glu Asn Ser	10385	Thr Gly Ser Arg Lys
10390	Gly Phe Cys Gln Val	10395	Asn Val Val Asp His	10400	Pro Gly Pro Pro Val
10405	Gly Pro Val Ser Phe	10410	Asp Glu Val Thr Lys	10415	Asp Tyr Met Val Ile
10420	Ser Trp Lys Pro Pro	10425	Leu Asp Asp Gly Gly	10430	Ser Lys Ile Thr Asn
10435		10440		10445	

Tyr	Ile	Ile	Glu	Lys	Lys	Glu	Val	Gly	Lys	Asp	Val	Trp	Met	Pro
10450					10455					10460				
Val	Thr	Ser	Ala	Ser	Ala	Lys	Thr	Thr	Cys	Lys	Val	Ser	Lys	Leu
10465					10470					10475				
Leu	Glu	Gly	Lys	Asp	Tyr	Ile	Phe	Arg	Ile	His	Ala	Glu	Asn	Leu
10480					10485					10490				
Tyr	Gly	Ile	Ser	Asp	Pro	Leu	Val	Ser	Asp	Ser	Met	Lys	Ala	Lys
10495					10500					10505				
Asp	Arg	Phe	Arg	Val	Pro	Asp	Ala	Pro	Asp	Gln	Pro	Ile	Val	Thr
10510					10515					10520				
Glu	Val	Thr	Lys	Asp	Ser	Ala	Leu	Val	Thr	Trp	Asn	Lys	Pro	His
10525					10530					10535				
Asp	Gly	Gly	Lys	Pro	Ile	Thr	Asn	Tyr	Ile	Leu	Glu	Lys	Arg	Glu
10540					10545					10550				
Thr	Met	Ser	Lys	Arg	Trp	Ala	Arg	Val	Thr	Lys	Asp	Pro	Ile	His
10555					10560					10565				
Pro	Tyr	Thr	Lys	Phe	Arg	Val	Pro	Asp	Leu	Leu	Glu	Gly	Cys	Gln
10570					10575					10580				
Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Glu	Ile	Gly	Ile	Gly	Asp
10585					10590					10595				
Pro	Ser	Pro	Pro	Ser	Lys	Pro	Val	Phe	Ala	Lys	Asp	Pro	Ile	Ala
10600					10605					10610				
Lys	Pro	Ser	Pro	Pro	Val	Asn	Pro	Glu	Ala	Ile	Asp	Thr	Thr	Cys
10615					10620					10625				
Asn	Ser	Val	Asp	Leu	Thr	Trp	Gln	Pro	Pro	Arg	His	Asp	Gly	Gly
10630					10635					10640				
Ser	Lys	Ile	Leu	Gly	Tyr	Ile	Val	Glu	Tyr	Gln	Lys	Val	Gly	Asp
10645					10650					10655				
Glu	Glu	Trp	Arg	Arg	Ala	Asn	His	Thr	Pro	Glu	Ser	Cys	Pro	Glu
10660					10665					10670				
Thr	Lys	Tyr	Lys	Val	Thr	Gly	Leu	Arg	Asp	Gly	Gln	Thr	Tyr	Lys
10675					10680					10685				
Phe	Arg	Val	Leu	Ala	Val	Asn	Ala	Ala	Gly	Glu	Ser	Asp	Pro	Ala
10690					10695					10700				
His	Val	Pro	Glu	Pro	Val	Leu	Val	Lys	Asp	Arg	Leu	Glu	Pro	Pro
10705					10710					10715				
Glu	Leu	Ile	Leu	Asp	Ala	Asn	Met	Ala	Arg	Glu	Gln	His	Ile	Lys
10720					10725					10730				
Val	Gly	Asp	Thr	Leu	Arg	Leu	Ser	Ala	Ile	Ile	Lys	Gly	Val	Pro
10735					10740					10745				
Phe	Pro	Lys	Val	Thr	Trp	Lys	Lys	Glu	Asp	Arg	Asp	Ala	Pro	Thr
10750					10755					10760				
Lys	Ala	Arg	Ile	Asp	Val	Thr	Pro	Val	Gly	Ser	Lys	Leu	Glu	Ile
10765					10770					10775				
Arg	Asn	Ala	Ala	His	Glu	Asp	Gly	Gly	Ile	Tyr	Ser	Leu	Thr	Val
10780					10785					10790				
Glu	Asn	Pro	Ala	Gly	Ser	Lys	Thr	Val	Ser	Val	Lys	Val	Leu	Val
10795					10800					10805				
Leu	Asp	Lys	Pro	Gly	Pro	Pro	Arg	Asp	Leu	Glu	Val	Ser	Glu	Ile
10810					10815					10820				
Arg	Lys	Asp	Ser	Cys	Tyr	Leu	Thr	Trp	Lys	Glu	Pro	Leu	Asp	Asp
10825					10830					10835				
Gly	Gly	Ser	Val	Ile	Thr	Asn	Tyr	Val	Val	Glu	Arg	Arg	Asp	Val
10840					10845					10850				
Ala	Ser	Ala	Gln	Trp	Ser	Pro	Leu	Ser	Ala	Thr	Ser	Lys	Lys	Lys
10855					10860					10865				
Ser	His	Phe	Ala	Lys	His	Leu	Asn	Glu	Gly	Asn	Gln	Tyr	Leu	Phe
10870					10875					10880				
Arg	Val	Ala	Ala	Glu	Asn	Gln	Tyr	Gly	Arg	Gly	Pro	Phe	Val	Glu

10885	10890	10895
Thr Pro Lys Pro Ile	Lys Ala Leu Asp Pro	Leu His Pro Pro Gly
10900	10905	10910
Pro Pro Lys Asp Leu	His His Val Asp Val	Asp Lys Thr Glu Val
10915	10920	10925
Ser Leu Val Trp Asn	Lys Pro Asp Arg Asp	Gly Gly Ser Pro Ile
10930	10935	10940
Thr Gly Tyr Leu Val	Glu Tyr Gln Glu Glu	Gly Thr Gln Asp Trp
10945	10950	10955
Ile Lys Phe Lys Thr	Val Thr Asn Leu Glu	Cys Val Val Thr Gly
10960	10965	10970
Leu Gln Gln Gly Lys	Thr Tyr Arg Phe Arg	Val Lys Ala Glu Asn
10975	10980	10985
Ile Val Gly Leu Gly	Leu Pro Asp Thr Thr	Ile Pro Ile Glu Cys
10990	10995	11000
Gln Glu Lys Leu Val	Pro Pro Ser Val Glu	Leu Asp Val Lys Leu
11005	11010	11015
Ile Glu Gly Leu Val	Val Lys Ala Gly Thr	Thr Val Arg Phe Pro
11020	11025	11030
Ala Ile Ile Arg Gly	Val Pro Val Pro Thr	Ala Lys Trp Thr Thr
11035	11040	11045
Asp Gly Ser Glu Ile	Lys Thr Asp Glu His	Tyr Thr Val Glu Thr
11050	11055	11060
Asp Asn Phe Ser Ser	Val Leu Thr Ile Lys	Asn Cys Leu Arg Arg
11065	11070	11075
Asp Thr Gly Glu Tyr	Gln Ile Thr Val Ser	Asn Ala Ala Gly Ser
11080	11085	11090
Lys Thr Val Ala Val	His Leu Thr Val Leu	Asp Val Pro Gly Pro
11095	11100	11105
Pro Thr Gly Pro Ile	Asn Ile Leu Asp Val	Thr Pro Glu His Met
11110	11115	11120
Thr Ile Ser Trp Gln	Pro Pro Lys Asp Asp	Gly Gly Ser Pro Val
11125	11130	11135
Ile Asn Tyr Ile Val	Glu Lys Gln Asp Thr	Arg Lys Asp Thr Trp
11140	11145	11150
Gly Val Val Ser Ser	Gly Ser Ser Lys Thr	Lys Leu Lys Ile Pro
11155	11160	11165
His Leu Gln Lys Gly	Cys Glu Tyr Val Phe	Arg Val Arg Ala Glu
11170	11175	11180
Asn Lys Ile Gly Val	Gly Pro Pro Leu Asp	Ser Thr Pro Thr Val
11185	11190	11195
Ala Lys His Lys Phe	Ser Pro Pro Ser Pro	Pro Gly Lys Pro Val
11200	11205	11210
Val Thr Asp Ile Thr	Glu Asn Ala Ala Thr	Val Ser Trp Thr Leu
11215	11220	11225
Pro Lys Ser Asp Gly	Gly Ser Pro Ile Thr	Gly Tyr Tyr Met Glu
11230	11235	11240
Arg Arg Glu Val Thr	Gly Lys Trp Val Arg	Val Asn Lys Thr Pro
11245	11250	11255
Ile Ala Asp Leu Lys	Phe Arg Val Thr Gly	Leu Tyr Glu Gly Asn
11260	11265	11270
Thr Tyr Glu Phe Arg	Val Phe Ala Glu Asn	Leu Ala Gly Leu Ser
11275	11280	11285
Lys Pro Ser Pro Ser	Ser Asp Pro Ile Lys	Ala Cys Arg Pro Ile
11290	11295	11300
Lys Pro Pro Gly Pro	Pro Ile Asn Pro Lys	Leu Lys Asp Lys Ser
11305	11310	11315
Arg Glu Thr Ala Asp	Leu Val Trp Thr Lys	Pro Leu Ser Asp Gly
11320	11325	11330

Gly	Ser	Pro	Ile	Leu	Gly	Tyr	Val	Val	Glu	Cys	Gln	Lys	Pro	Gly
11335					11340					11345				
Thr	Ala	Gln	Trp	Asn	Arg	Ile	Asn	Lys	Asp	Glu	Leu	Ile	Arg	Gln
11350					11355					11360				
Cys	Ala	Phe	Arg	Val	Pro	Gly	Leu	Ile	Glu	Gly	Asn	Glu	Tyr	Arg
11365					11370					11375				
Phe	Arg	Ile	Lys	Ala	Ala	Asn	Ile	Val	Gly	Glu	Gly	Glu	Pro	Arg
11380					11385					11390				
Glu	Leu	Ala	Glu	Ser	Val	Ile	Ala	Lys	Asp	Ile	Leu	His	Pro	Pro
11395					11400					11405				
Glu	Val	Glu	Leu	Asp	Val	Thr	Cys	Arg	Asp	Val	Ile	Thr	Val	Arg
11410					11415					11420				
Val	Gly	Gln	Thr	Ile	Arg	Ile	Leu	Ala	Arg	Val	Lys	Gly	Arg	Pro
11425					11430					11435				
Glu	Pro	Asp	Ile	Thr	Trp	Thr	Lys	Glu	Gly	Lys	Val	Leu	Val	Arg
11440					11445					11450				
Glu	Lys	Arg	Val	Asp	Leu	Ile	Gln	Asp	Leu	Pro	Arg	Val	Glu	Leu
11455					11460					11465				
Gln	Ile	Lys	Glu	Ala	Val	Arg	Ala	Asp	His	Gly	Lys	Tyr	Ile	Ile
11470					11475					11480				
Ser	Ala	Lys	Asn	Ser	Ser	Gly	His	Ala	Gln	Gly	Ser	Ala	Ile	Val
11485					11490					11495				
Asn	Val	Leu	Asp	Arg	Pro	Gly	Pro	Cys	Gln	Asn	Leu	Lys	Val	Thr
11500					11505					11510				
Asn	Val	Thr	Lys	Glu	Asn	Cys	Thr	Ile	Ser	Trp	Glu	Asn	Pro	Leu
11515					11520					11525				
Asp	Asn	Gly	Gly	Ser	Glu	Ile	Thr	Asn	Phe	Ile	Val	Glu	Tyr	Arg
11530					11535					11540				
Lys	Pro	Asn	Gln	Lys	Gly	Trp	Ser	Ile	Val	Ala	Ser	Asp	Val	Thr
11545					11550					11555				
Lys	Arg	Leu	Ile	Lys	Ala	Asn	Leu	Leu	Ala	Asn	Asn	Glu	Tyr	Tyr
11560					11565					11570				
Phe	Arg	Val	Cys	Ala	Glu	Asn	Lys	Val	Gly	Val	Gly	Pro	Thr	Ile
11575					11580					11585				
Glu	Thr	Lys	Thr	Pro	Ile	Leu	Ala	Ile	Asn	Pro	Ile	Asp	Arg	Pro
11590					11595					11600				
Gly	Glu	Pro	Glu	Asn	Leu	His	Ile	Ala	Asp	Lys	Gly	Lys	Thr	Phe
11605					11610					11615				
Val	Tyr	Leu	Lys	Trp	Arg	Arg	Pro	Asp	Tyr	Asp	Gly	Gly	Ser	Pro
11620					11625					11630				
Asn	Leu	Ser	Tyr	His	Val	Glu	Arg	Arg	Leu	Lys	Gly	Ser	Asp	Asp
11635					11640					11645				
Trp	Glu	Arg	Val	His	Lys	Gly	Ser	Ile	Lys	Glu	Thr	His	Tyr	Met
11650					11655					11660				
Val	Asp	Arg	Cys	Val	Glu	Asn	Gln	Ile	Tyr	Glu	Phe	Arg	Val	Gln
11665					11670					11675				
Thr	Lys	Asn	Glu	Gly	Gly	Glu	Ser	Asp	Trp	Val	Lys	Thr	Glu	Glu
11680					11685					11690				
Val	Val	Val	Lys	Glu	Asp	Leu	Gln	Lys	Pro	Val	Leu	Asp	Leu	Lys
11695					11700					11705				
Leu	Ser	Gly	Val	Leu	Thr	Val	Lys	Ala	Gly	Asp	Thr	Ile	Arg	Leu
11710					11715					11720				
Glu	Ala	Gly	Val	Arg	Gly	Lys	Pro	Phe	Pro	Glu	Val	Ala	Trp	Thr
11725					11730					11735				
Lys	Asp	Lys	Asp	Ala	Thr	Asp	Leu	Thr	Arg	Ser	Pro	Arg	Val	Lys
11740					11745					11750				
Ile	Asp	Thr	Arg	Ala	Asp	Ser	Ser	Lys	Phe	Ser	Leu	Thr	Lys	Ala
11755					11760					11765				
Lys	Arg	Ser	Asp	Gly	Gly	Lys	Tyr	Val	Val	Thr	Ala	Thr	Asn	Thr

11770	Ala Gly Ser Phe Val	11775	Ala Tyr Ala Thr Val	11780	Asn Val Leu Asp Lys
11785	Pro Gly Pro Val Arg	11790	Asn Leu Lys Ile Val	11795	Asp Val Ser Ser Asp
11800	Arg Cys Thr Val Cys	11805	Trp Asp Pro Pro Glu	11810	Asp Asp Gly Gly Cys
11815	Glu Ile Gln Asn Tyr	11820	Ile Leu Glu Lys Cys	11825	Glu Thr Lys Arg Met
11830	Val Trp Ser Thr Tyr	11835	Ser Ala Thr Val Leu	11840	Thr Pro Gly Thr Thr
11845	Val Thr Arg Leu Ile	11850	Glu Gly Asn Glu Tyr	11855	Ile Phe Arg Val Arg
11860	Ala Glu Asn Lys Ile	11865	Gly Thr Gly Pro Pro	11870	Thr Glu Ser Lys Pro
11875	Val Ile Ala Lys Thr	11880	Lys Tyr Asp Lys Pro	11885	Gly Arg Pro Asp Pro
11890	Pro Glu Val Thr Lys	11895	Val Ser Lys Glu Glu	11900	Met Thr Val Val Trp
11905	Asn Pro Pro Glu Tyr	11910	Asp Gly Gly Lys Ser	11915	Ile Thr Gly Tyr Phe
11920	Leu Glu Lys Lys Glu	11925	Lys His Ser Thr Arg	11930	Trp Val Pro Val Asn
11935	Lys Ser Ala Ile Pro	11940	Glu Arg Arg Met Lys	11945	Val Gln Asn Leu Leu
11950	Pro Asp His Glu Tyr	11955	Gln Phe Arg Val Lys	11960	Ala Glu Asn Glu Ile
11965	Gly Ile Gly Glu Pro	11970	Ser Leu Pro Ser Arg	11975	Pro Val Val Ala Lys
11980	Asp Pro Ile Glu Pro	11985	Pro Gly Pro Pro Thr	11990	Asn Phe Arg Val Val
11995	Asp Thr Thr Lys His	12000	Ser Ile Thr Leu Gly	12005	Trp Gly Lys Pro Val
12010	Tyr Asp Gly Gly Ala	12015	Pro Ile Ile Gly Tyr	12020	Val Val Glu Met Arg
12025	Pro Lys Ile Ala Asp	12030	Ala Ser Pro Asp Glu	12035	Gly Trp Lys Arg Cys
12040	Asn Ala Ala Ala Gln	12045	Leu Val Arg Lys Glu	12050	Phe Thr Val Thr Ser
12055	Leu Asp Glu Asn Gln	12060	Glu Tyr Glu Phe Arg	12065	Val Cys Ala Gln Asn
12070	Gln Val Gly Ile Gly	12075	Arg Pro Ala Glu Leu	12080	Lys Glu Ala Ile Lys
12085	Pro Lys Glu Ile Leu	12090	Glu Pro Pro Glu Ile	12095	Asp Leu Asp Ala Ser
12100	Met Arg Lys Leu Val	12105	Ile Val Arg Ala Gly	12110	Cys Pro Ile Arg Leu
12115	Phe Ala Ile Val Arg	12120	Gly Arg Pro Ala Pro	12125	Lys Val Thr Trp Arg
12130	Lys Val Gly Ile Asp	12135	Asn Val Val Arg Lys	12140	Gly Gln Val Asp Leu
12145	Val Asp Thr Met Ala	12150	Phe Leu Val Ile Pro	12155	Asn Ser Thr Arg Asp
12160	Asp Ser Gly Lys Tyr	12165	Ser Leu Thr Leu Val	12170	Asn Pro Ala Gly Glu
12175	Lys Ala Val Phe Val	12180	Asn Val Arg Val Leu	12185	Asp Thr Pro Gly Pro
12190	Val Ser Asp Leu Lys	12195	Val Ser Asp Val Thr	12200	Lys Thr Ser Cys His
12205		12210		12215	

Val	Ser	Trp	Ala	Pro	Pro	Glu	Asn	Asp	Gly	Gly	Ser	Gln	Val	Thr
12220										12225				
His	Tyr	Ile	Val	Glu	Lys	Arg	Glu	Ala	Asp	Arg	Lys	Thr	Trp	Ser
12235										12240				
Thr	Val	Thr	Pro	Glu	Val	Lys	Lys	Thr	Ser	Phe	His	Val	Thr	Asn
12250										12255				
Leu	Val	Pro	Gly	Asn	Glu	Tyr	Tyr	Phe	Arg	Val	Thr	Ala	Val	Asn
12265										12270				
Glu	Tyr	Gly	Pro	Gly	Val	Pro	Thr	Asp	Val	Pro	Lys	Pro	Val	Leu
12280										12285				
Ala	Ser	Asp	Pro	Leu	Ser	Glu	Pro	Asp	Pro	Pro	Arg	Lys	Leu	Glu
12295										12300				
Ala	Thr	Glu	Met	Thr	Lys	Asn	Ser	Ala	Thr	Leu	Ala	Trp	Leu	Pro
12310										12315				
Pro	Leu	Arg	Asp	Gly	Gly	Ala	Lys	Ile	Asp	Gly	Tyr	Ile	Ile	Ser
12325										12330				
Tyr	Arg	Glu	Glu	Glu	Gln	Pro	Ala	Asp	Arg	Trp	Thr	Glu	Tyr	Ser
12340										12345				
Val	Val	Lys	Asp	Leu	Ser	Leu	Val	Val	Thr	Gly	Leu	Lys	Glu	Gly
12355										12360				
Lys	Lys	Tyr	Lys	Phe	Arg	Val	Ala	Ala	Arg	Asn	Ala	Val	Gly	Val
12370										12375				
Ser	Leu	Pro	Arg	Glu	Ala	Glu	Gly	Val	Tyr	Glu	Ala	Lys	Glu	Gln
12385										12390				
Leu	Leu	Pro	Pro	Lys	Ile	Leu	Met	Pro	Glu	Gln	Ile	Thr	Ile	Lys
12400										12405				
Ala	Gly	Lys	Lys	Leu	Arg	Ile	Glu	Ala	His	Val	Tyr	Gly	Lys	Pro
12415										12420				
His	Pro	Thr	Cys	Lys	Trp	Lys	Lys	Gly	Glu	Asp	Glu	Val	Val	Thr
12430										12435				
Ser	Ser	His	Leu	Ala	Val	His	Lys	Ala	Asp	Ser	Ser	Ser	Ile	Leu
12445										12450				
Ile	Ile	Lys	Asp	Val	Thr	Arg	Lys	Asp	Ser	Gly	Tyr	Tyr	Ser	Leu
12460										12465				
Thr	Ala	Glu	Asn	Ser	Ser	Gly	Thr	Asp	Thr	Gln	Lys	Ile	Lys	Val
12475										12480				
Val	Val	Met	Asp	Ala	Pro	Gly	Pro	Pro	Gln	Pro	Pro	Phe	Asp	Ile
12490										12495				
Ser	Asp	Ile	Asp	Ala	Asp	Ala	Cys	Ser	Leu	Ser	Trp	His	Ile	Pro
12505										12510				
Leu	Glu	Asp	Gly	Gly	Ser	Asn	Ile	Thr	Asn	Tyr	Ile	Val	Glu	Lys
12520										12525				
Cys	Asp	Val	Ser	Arg	Gly	Asp	Trp	Val	Thr	Ala	Leu	Ala	Ser	Val
12535										12540				
Thr	Lys	Thr	Ser	Cys	Arg	Val	Gly	Lys	Leu	Ile	Pro	Gly	Gln	Glu
12550										12555				
Tyr	Ile	Phe	Arg	Val	Arg	Ala	Glu	Asn	Arg	Phe	Gly	Ile	Ser	Glu
12565										12570				
Pro	Leu	Thr	Ser	Pro	Lys	Met	Val	Ala	Gln	Phe	Pro	Phe	Gly	Val
12580										12585				
Pro	Ser	Glu	Pro	Lys	Asn	Ala	Arg	Val	Thr	Lys	Val	Asn	Lys	Asp
12595										12600				
Cys	Ile	Phe	Val	Ala	Trp	Asp	Arg	Pro	Asp	Ser	Asp	Gly	Gly	Ser
12610										12615				
Pro	Ile	Ile	Gly	Tyr	Leu	Ile	Glu	Arg	Lys	Glu	Arg	Asn	Ser	Leu
12625										12630				
Leu	Trp	Val	Lys	Ala	Asn	Asp	Thr	Leu	Val	Arg	Ser	Thr	Glu	Tyr
12640										12645				
Pro	Cys	Ala	Gly	Leu	Val	Glu	Gly	Leu	Glu	Tyr	Ser	Phe	Arg	Ile

12655	Tyr Ala Leu Asn Lys	12660	Ala Gly Ser Ser Pro	12665	Pro Ser Lys Pro Thr
12670	Glu Tyr Val Thr Ala	12675	Arg Met Pro Val Asp	12680	Pro Pro Gly Lys Pro
12685	Glu Val Ile Asp Val	12690	Thr Lys Ser Thr Val	12695	Ser Leu Ile Trp Ala
12700	Arg Pro Lys His Asp	12705	Gly Gly Ser Lys Ile	12710	Ile Gly Tyr Phe Val
12715	Glu Ala Cys Lys Leu	12720	Pro Gly Asp Lys Trp	12725	Val Arg Cys Asn Thr
12730	Ala Pro His Gln Ile	12735	Pro Gln Glu Glu Tyr	12740	Thr Ala Thr Gly Leu
12745	Glu Glu Lys Ala Gln	12750	Tyr Gln Phe Arg Ala	12755	Ile Ala Arg Thr Ala
12760	Val Asn Ile Ser Pro	12765	Pro Ser Glu Pro Ser	12770	Asp Pro Val Thr Ile
12775	Leu Ala Glu Asn Val	12780	Pro Pro Arg Ile Asp	12785	Leu Ser Val Ala Met
12790	Lys Ser Leu Leu Thr	12795	Val Lys Ala Gly Thr	12800	Asn Val Cys Leu Asp
12805	Ala Thr Val Phe Gly	12810	Lys Pro Met Pro Thr	12815	Val Ser Trp Lys Lys
12820	Asp Gly Thr Leu Leu	12825	Lys Pro Ala Glu Gly	12830	Ile Lys Met Ala Met
12835	Gln Arg Asn Leu Cys	12840	Thr Leu Glu Leu Phe	12845	Ser Val Asn Arg Lys
12850	Asp Ser Gly Asp Tyr	12855	Thr Ile Thr Ala Glu	12860	Asn Ser Ser Gly Ser
12865	Lys Ser Ala Thr Ile	12870	Lys Leu Lys Val Leu	12875	Asp Lys Pro Gly Pro
12880	Pro Ala Ser Val Lys	12885	Ile Asn Lys Met Tyr	12890	Ser Asp Arg Ala Met
12895	Leu Ser Trp Glu Pro	12900	Pro Leu Glu Asp Gly	12905	Gly Ser Glu Ile Thr
12910	Asn Tyr Ile Val Asp	12915	Lys Arg Glu Thr Ser	12920	Arg Pro Asn Trp Ala
12925	Gln Val Ser Ala Thr	12930	Val Pro Ile Thr Ser	12935	Cys Ser Val Glu Lys
12940	Leu Ile Glu Gly His	12945	Glu Tyr Gln Phe Arg	12950	Ile Cys Ala Glu Asn
12955	Lys Tyr Gly Val Gly	12960	Asp Pro Val Phe Thr	12965	Glu Pro Ala Ile Ala
12970	Lys Asn Pro Tyr Asp	12975	Pro Pro Gly Arg Cys	12980	Asp Pro Pro Val Ile
12985	Ser Asn Ile Thr Lys	12990	Asp His Met Thr Val	12995	Ser Trp Lys Pro Pro
13000	Ala Asp Asp Gly Gly	13005	Ser Pro Ile Thr Gly	13010	Tyr Leu Leu Glu Lys
13015	Arg Glu Thr Gln Ala	13020	Val Asn Trp Thr Lys	13025	Val Asn Arg Lys Pro
13030	Ile Ile Glu Arg Thr	13035	Leu Lys Ala Thr Gly	13040	Leu Gln Glu Gly Thr
13045	Glu Tyr Glu Phe Arg	13050	Val Thr Ala Ile Asn	13055	Lys Ala Gly Pro Gly
13060	Lys Pro Ser Asp Ala	13065	Ser Lys Ala Ala Tyr	13070	Ala Arg Asp Pro Gln
13075	Tyr Pro Pro Ala Pro	13080	Pro Ala Phe Pro Lys	13085	Val Tyr Asp Thr Thr
13090		13095		13100	

Arg	Ser	Ser	Val	Ser	Leu	Ser	Trp	Gly	Lys	Pro	Ala	Tyr	Asp	Gly
13105					13110					13115				
Gly	Ser	Pro	Ile	Ile	Gly	Tyr	Leu	Val	Glu	Val	Lys	Arg	Ala	Asp
13120					13125					13130				
Ser	Asp	Asn	Trp	Val	Arg	Cys	Asn	Leu	Pro	Gln	Asn	Leu	Gln	Lys
13135					13140					13145				
Thr	Arg	Phe	Glu	Val	Thr	Gly	Leu	Met	Glu	Asp	Thr	Gln	Tyr	Gln
13150					13155					13160				
Phe	Arg	Val	Tyr	Ala	Val	Asn	Lys	Ile	Gly	Tyr	Ser	Asp	Pro	Ser
13165					13170					13175				
Asp	Val	Pro	Asp	Lys	His	Tyr	Pro	Lys	Asp	Ile	Leu	Ile	Pro	Pro
13180					13185					13190				
Glu	Gly	Glu	His	Asp	Ala	Asp	Leu	Arg	Lys	Thr	Leu	Ile	Leu	Arg
13195					13200					13205				
Ala	Gly	Val	Thr	Met	Arg	Leu	Tyr	Val	Pro	Val	Lys	Gly	Arg	Pro
13210					13215					13220				
Pro	Pro	Lys	Ile	Thr	Trp	Ser	Lys	Pro	Asn	Val	Asn	Leu	Arg	Asp
13225					13230					13235				
Arg	Ile	Gly	Leu	Asp	Ile	Lys	Ser	Thr	Asp	Phe	Asp	Thr	Phe	Leu
13240					13245					13250				
Arg	Cys	Glu	Asn	Val	Asn	Lys	Tyr	Asp	Ala	Gly	Lys	Tyr	Ile	Leu
13255					13260					13265				
Thr	Leu	Glu	Asn	Ser	Cys	Gly	Lys	Lys	Glu	Tyr	Thr	Ile	Val	Val
13270					13275					13280				
Lys	Val	Leu	Asp	Thr	Pro	Gly	Pro	Pro	Ile	Asn	Val	Thr	Val	Lys
13285					13290					13295				
Glu	Ile	Ser	Lys	Asp	Ser	Ala	Tyr	Val	Thr	Trp	Glu	Pro	Pro	Ile
13300					13305					13310				
Ile	Asp	Gly	Gly	Ser	Pro	Ile	Ile	Asn	Tyr	Val	Val	Gln	Lys	Arg
13315					13320					13325				
Asp	Ala	Glu	Arg	Lys	Ser	Trp	Ser	Thr	Val	Thr	Thr	Glu	Cys	Ser
13330					13335					13340				
Lys	Thr	Ser	Phe	Arg	Val	Pro	Asn	Leu	Glu	Glu	Gly	Lys	Ser	Tyr
13345					13350					13355				
Phe	Phe	Arg	Val	Phe	Ala	Glu	Asn	Glu	Tyr	Gly	Ile	Gly	Asp	Pro
13360					13365					13370				
Gly	Glu	Thr	Arg	Asp	Ala	Val	Lys	Ala	Ser	Gln	Thr	Pro	Gly	Pro
13375					13380					13385				
Val	Val	Asp	Leu	Lys	Val	Arg	Ser	Val	Ser	Lys	Ser	Ser	Cys	Ser
13390					13395					13400				
Ile	Gly	Trp	Lys	Lys	Pro	His	Ser	Asp	Gly	Gly	Ser	Arg	Ile	Ile
13405					13410					13415				
Gly	Tyr	Val	Val	Asp	Phe	Leu	Thr	Glu	Glu	Asn	Lys	Trp	Gln	Arg
13420					13425					13430				
Val	Met	Lys	Ser	Leu	Ser	Leu	Gln	Tyr	Ser	Ala	Lys	Asp	Leu	Thr
13435					13440					13445				
Glu	Gly	Lys	Glu	Tyr	Thr	Phe	Arg	Val	Ser	Ala	Glu	Asn	Glu	Asn
13450					13455					13460				
Gly	Glu	Gly	Thr	Pro	Ser	Glu	Ile	Thr	Val	Val	Ala	Arg	Asp	Asp
13465					13470					13475				
Val	Val	Ala	Pro	Asp	Leu	Asp	Leu	Lys	Gly	Leu	Pro	Asp	Leu	Cys
13480					13485					13490				
Tyr	Leu	Ala	Lys	Glu	Asn	Ser	Asn	Phe	Arg	Leu	Lys	Ile	Pro	Ile
13495					13500					13505				
Lys	Gly	Lys	Pro	Ala	Pro	Ser	Val	Ser	Trp	Lys	Lys	Gly	Glu	Asp
13510					13515					13520				
Pro	Leu	Ala	Thr	Asp	Thr	Arg	Val	Ser	Val	Glu	Ser	Ser	Ala	Val
13525					13530					13535				
Asn	Thr	Thr	Leu	Ile	Val	Tyr	Asp	Cys	Gln	Lys	Ser	Asp	Ala	Gly

13540	Lys Tyr Thr Ile Thr	13545	Leu Lys Asn Val Ala	13550	Gly Thr Lys Glu Gly
13555	Thr Ile Ser Ile Lys	13560	Val Val Gly Lys Pro	13565	Gly Ile Pro Thr Gly
13570	Pro Ile Lys Phe Asp	13575	Glu Val Thr Ala Glu	13580	Ala Met Thr Leu Lys
13585	Trp Ala Pro Pro Lys	13590	Asp Asp Gly Gly Ser	13595	Glu Ile Thr Asn Tyr
13600	Ile Leu Glu Lys Arg	13605	Asp Ser Val Asn Asn	13610	Lys Trp Val Thr Cys
13615	Ala Ser Ala Val Gln	13620	Lys Thr Thr Phe Arg	13625	Val Thr Arg Leu His
13630	Glu Gly Met Glu Tyr	13635	Thr Phe Arg Val Ser	13640	Ala Glu Asn Lys Tyr
13645	Gly Val Gly Glu Gly	13650	Leu Lys Ser Glu Pro	13655	Ile Val Ala Arg His
13660	Pro Phe Asp Val Pro	13665	Asp Ala Pro Pro Pro	13670	Pro Asn Ile Val Asp
13675	Val Arg His Asp Ser	13680	Val Ser Leu Thr Trp	13685	Thr Asp Pro Lys Lys
13690	Thr Gly Gly Ser Pro	13695	Ile Thr Gly Tyr His	13700	Leu Glu Phe Lys Glu
13705	Arg Asn Ser Leu Leu	13710	Trp Lys Arg Ala Asn	13715	Lys Thr Pro Ile Arg
13720	Met Arg Asp Phe Lys	13725	Val Thr Gly Leu Thr	13730	Glu Gly Leu Glu Tyr
13735	Glu Phe Arg Val Met	13740	Ala Ile Asn Leu Ala	13745	Gly Val Gly Lys Pro
13750	Ser Leu Pro Ser Glu	13755	Pro Val Val Ala Leu	13760	Asp Pro Ile Asp Pro
13765	Pro Gly Lys Pro Glu	13770	Val Ile Asn Ile Thr	13775	Arg Asn Ser Val Thr
13780	Leu Ile Trp Thr Glu	13785	Pro Lys Tyr Asp Gly	13790	Gly His Lys Leu Thr
13795	Gly Tyr Ile Val Glu	13800	Lys Arg Asp Leu Pro	13805	Ser Lys Ser Trp Met
13810	Lys Ala Asn His Val	13815	Asn Val Pro Glu Cys	13820	Ala Phe Thr Val Thr
13825	Asp Leu Val Glu Gly	13830	Gly Lys Tyr Glu Phe	13835	Arg Ile Arg Ala Lys
13840	Asn Thr Ala Gly Ala	13845	Ile Ser Ala Pro Ser	13850	Glu Ser Thr Glu Thr
13855	Ile Ile Cys Lys Asp	13860	Glu Tyr Glu Ala Pro	13865	Thr Ile Val Leu Asp
13870	Pro Thr Ile Lys Asp	13875	Gly Leu Thr Ile Lys	13880	Ala Gly Asp Thr Ile
13885	Val Leu Asn Ala Ile	13890	Ser Ile Leu Gly Lys	13895	Pro Leu Pro Lys Ser
13900	Ser Trp Ser Lys Ala	13905	Gly Lys Asp Ile Arg	13910	Pro Ser Asp Ile Thr
13915	Gln Ile Thr Ser Thr	13920	Pro Thr Ser Ser Met	13925	Leu Thr Ile Lys Tyr
13930	Ala Thr Arg Lys Asp	13935	Ala Gly Glu Tyr Thr	13940	Ile Thr Ala Thr Asn
13945	Pro Phe Gly Thr Lys	13950	Val Glu His Val Lys	13955	Val Thr Val Leu Asp
13960	Val Pro Gly Pro Pro	13965	Gly Pro Val Glu Ile	13970	Ser Asn Val Ser Ala
13975		13980		13985	

Glu	Lys	Ala	Thr	Leu	Thr	Trp	Thr	Pro	Pro	Leu	Glu	Asp	Gly	Gly
13990										13995				
Ser	Pro	Ile	Lys	Ser	Tyr	Ile	Leu	Glu	Lys	Arg	Glu	Thr	Ser	Arg
14005										14010				
Leu	Leu	Trp	Thr	Val	Val	Ser	Glu	Asp	Ile	Gln	Ser	Cys	Arg	His
14020										14025				
Val	Ala	Thr	Lys	Leu	Ile	Gln	Gly	Asn	Glu	Tyr	Ile	Phe	Arg	Val
14035										14040				
Ser	Ala	Val	Asn	His	Tyr	Gly	Lys	Gly	Glu	Pro	Val	Gln	Ser	Glu
14050										14055				
Pro	Val	Lys	Met	Val	Asp	Arg	Phe	Gly	Pro	Pro	Gly	Pro	Pro	Glu
14065										14070				
Lys	Pro	Glu	Val	Ser	Asn	Val	Thr	Lys	Asn	Thr	Ala	Thr	Val	Ser
14080										14085				
Trp	Lys	Arg	Pro	Val	Asp	Asp	Gly	Gly	Ser	Glu	Ile	Thr	Gly	Tyr
14095										14100				
His	Val	Glu	Arg	Arg	Glu	Lys	Lys	Ser	Leu	Arg	Trp	Val	Arg	Ala
14110										14115				
Ile	Lys	Thr	Pro	Val	Ser	Asp	Leu	Arg	Cys	Lys	Val	Thr	Gly	Leu
14125										14130				
Gln	Glu	Gly	Ser	Thr	Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Arg
14140										14145				
Ala	Gly	Ile	Gly	Pro	Pro	Ser	Glu	Ala	Ser	Asp	Ser	Val	Leu	Met
14155										14160				
Lys	Asp	Ala	Ala	Tyr	Pro	Pro	Gly	Pro	Pro	Ser	Asn	Pro	His	Val
14170										14175				
Thr	Asp	Thr	Thr	Lys	Lys	Ser	Ala	Ser	Leu	Ala	Trp	Gly	Lys	Pro
14185										14190				
His	Tyr	Asp	Gly	Gly	Leu	Glu	Ile	Thr	Gly	Tyr	Val	Val	Glu	His
14200										14205				
Gln	Lys	Val	Gly	Asp	Glu	Ala	Trp	Ile	Lys	Asp	Thr	Thr	Gly	Thr
14215										14220				
Ala	Leu	Arg	Ile	Thr	Gln	Phe	Val	Val	Pro	Asp	Leu	Gln	Thr	Lys
14230										14235				
Glu	Lys	Tyr	Asn	Phe	Arg	Ile	Ser	Ala	Ile	Asn	Asp	Ala	Gly	Val
14245										14250				
Gly	Glu	Pro	Ala	Val	Ile	Pro	Asp	Val	Glu	Ile	Val	Glu	Arg	Glu
14260										14265				
Met	Ala	Pro	Asp	Phe	Glu	Leu	Asp	Ala	Glu	Leu	Arg	Arg	Thr	Leu
14275										14280				
Val	Val	Arg	Ala	Gly	Leu	Ser	Ile	Arg	Ile	Phe	Val	Pro	Ile	Lys
14290										14295				
Gly	Arg	Pro	Ala	Pro	Glu	Val	Thr	Trp	Thr	Lys	Asp	Asn	Ile	Asn
14305										14310				
Leu	Lys	Asn	Arg	Ala	Asn	Ile	Glu	Asn	Thr	Glu	Ser	Phe	Thr	Leu
14320										14325				
Leu	Ile	Ile	Pro	Glu	Cys	Asn	Arg	Tyr	Asp	Thr	Gly	Lys	Phe	Val
14335										14340				
Met	Thr	Ile	Glu	Asn	Pro	Ala	Gly	Lys	Lys	Ser	Gly	Phe	Val	Asn
14350										14355				
Val	Arg	Val	Leu	Asp	Thr	Pro	Gly	Pro	Val	Leu	Asn	Leu	Arg	Pro
14365										14370				
Thr	Asp	Ile	Thr	Lys	Asp	Ser	Val	Thr	Leu	His	Trp	Asp	Leu	Pro
14380										14385				
Leu	Ile	Asp	Gly	Gly	Ser	Arg	Ile	Thr	Asn	Tyr	Ile	Val	Glu	Lys
14395										14400				
Arg	Glu	Ala	Thr	Arg	Lys	Ser	Tyr	Ser	Thr	Ala	Thr	Thr	Lys	Cys
14410										14415				
His	Lys	Cys	Thr	Tyr	Lys	Val	Thr	Gly	Leu	Ser	Glu	Gly	Cys	Glu

14425	Tyr Phe Phe Arg Val	14430	Met Ala Glu Asn Glu	14435	Tyr Gly Ile Gly Glu
14440	Pro Thr Glu Thr Thr	14445	Glu Pro Val Lys Ala	14450	Ser Glu Ala Pro Ser
14455	Pro Pro Asp Ser Leu	14460	Asn Ile Met Asp Ile	14465	Thr Lys Ser Thr Val
14470	Ser Leu Ala Trp Pro	14475	Lys Pro Lys His Asp	14480	Gly Gly Ser Lys Ile
14485	Thr Gly Tyr Val Ile	14490	Glu Ala Gln Arg Lys	14495	Gly Ser Asp Gln Trp
14500	Thr His Ile Thr Thr	14505	Val Lys Gly Leu Glu	14510	Cys Val Val Arg Asn
14515	Leu Thr Glu Gly Glu	14520	Glu Tyr Thr Phe Gln	14525	Val Met Ala Val Asn
14530	Ser Ala Gly Arg Ser	14535	Ala Pro Arg Glu Ser	14540	Arg Pro Val Ile Val
14545	Lys Glu Gln Thr Met	14550	Leu Pro Glu Leu Asp	14555	Leu Arg Gly Ile Tyr
14560	Gln Lys Leu Val Ile	14565	Ala Lys Ala Gly Asp	14570	Asn Ile Lys Val Glu
14575	Ile Pro Val Leu Gly	14580	Arg Pro Lys Pro Thr	14585	Val Thr Trp Lys Lys
14590	Gly Asp Gln Ile Leu	14595	Lys Gln Thr Gln Arg	14600	Val Asn Phe Glu Thr
14605	Thr Ala Thr Ser Thr	14610	Ile Leu Asn Ile Asn	14615	Glu Cys Val Arg Ser
14620	Asp Ser Gly Pro Tyr	14625	Pro Leu Thr Ala Arg	14630	Asn Ile Val Gly Glu
14635	Val Gly Asp Val Ile	14640	Thr Ile Gln Val His	14645	Asp Ile Pro Gly Pro
14650	Pro Thr Gly Pro Ile	14655	Lys Phe Asp Glu Val	14660	Ser Ser Asp Phe Val
14665	Thr Phe Ser Trp Asp	14670	Pro Pro Glu Asn Asp	14675	Gly Gly Val Pro Ile
14680	Ser Asn Tyr Val Val	14685	Glu Met Arg Gln Thr	14690	Asp Ser Thr Thr Trp
14695	Val Glu Leu Ala Thr	14700	Thr Val Ile Arg Thr	14705	Thr Tyr Lys Ala Thr
14710	Arg Leu Thr Thr Gly	14715	Leu Glu Tyr Gln Phe	14720	Arg Val Lys Ala Gln
14725	Asn Arg Tyr Gly Val	14730	Gly Pro Gly Ile Thr	14735	Ser Ala Trp Ile Val
14740	Ala Asn Tyr Pro Phe	14745	Lys Val Pro Gly Pro	14750	Pro Gly Thr Pro Gln
14755	Val Thr Ala Val Thr	14760	Lys Asp Ser Met Thr	14765	Ile Ser Trp His Glu
14770	Pro Leu Ser Asp Gly	14775	Gly Ser Pro Ile Leu	14780	Gly Tyr His Val Glu
14785	Arg Lys Glu Arg Asn	14790	Gly Ile Leu Trp Gln	14795	Thr Val Ser Lys Ala
14800	Leu Val Pro Gly Asn	14805	Ile Phe Lys Ser Ser	14810	Gly Leu Thr Asp Gly
14815	Ile Ala Tyr Glu Phe	14820	Arg Val Ile Ala Glu	14825	Asn Met Ala Gly Lys
14830	Ser Lys Pro Ser Lys	14835	Pro Ser Glu Pro Met	14840	Leu Ala Leu Asp Pro
14845	Ile Asp Pro Pro Gly	14850	Lys Pro Val Pro Leu	14855	Asn Ile Thr Arg His
14860		14865		14870	

Thr Val Thr Leu Lys	Trp Ala Lys Pro Glu	Tyr Thr Gly Gly Phe
14875	14880	14885
Lys Ile Thr Ser Tyr	Ile Val Glu Lys Arg	Asp Leu Pro Asn Gly
14890	14895	14900
Arg Trp Leu Lys Ala	Asn Phe Ser Asn Ile	Leu Glu Asn Glu Phe
14905	14910	14915
Thr Val Ser Gly Leu	Thr Glu Asp Ala Ala	Tyr Glu Phe Arg Val
14920	14925	14930
Ile Ala Lys Asn Ala	Ala Gly Ala Ile Ser	Pro Pro Ser Glu Pro
14935	14940	14945
Ser Asp Ala Ile Thr	Cys Arg Asp Asp Val	Glu Ala Pro Lys Ile
14950	14955	14960
Lys Val Asp Val Lys	Phe Lys Asp Thr Val	Ile Leu Lys Ala Gly
14965	14970	14975
Glu Ala Phe Arg Leu	Glu Ala Asp Val Ser	Gly Arg Pro Pro Pro
14980	14985	14990
Thr Met Glu Trp Ser	Lys Asp Gly Lys Glu	Leu Glu Gly Thr Ala
14995	15000	15005
Lys Leu Glu Ile Lys	Ile Ala Asp Phe Ser	Thr Asn Leu Val Asn
15010	15015	15020
Lys Asp Ser Thr Arg	Arg Asp Ser Gly Ala	Tyr Thr Leu Thr Ala
15025	15030	15035
Thr Asn Pro Gly Gly	Phe Ala Lys His Ile	Phe Asn Val Lys Val
15040	15045	15050
Leu Asp Arg Pro Gly	Pro Pro Glu Gly Pro	Leu Ala Val Thr Glu
15055	15060	15065
Val Thr Ser Glu Lys	Cys Val Leu Ser Trp	Phe Pro Pro Leu Asp
15070	15075	15080
Asp Gly Gly Ala Lys	Ile Asp His Tyr Ile	Val Gln Lys Arg Glu
15085	15090	15095
Thr Ser Arg Leu Ala	Trp Thr Asn Val Ala	Ser Glu Val Gln Val
15100	15105	15110
Thr Lys Leu Lys Val	Thr Lys Leu Leu Lys	Gly Asn Glu Tyr Ile
15115	15120	15125
Phe Arg Val Met Ala	Val Asn Lys Tyr Gly	Val Gly Glu Pro Leu
15130	15135	15140
Glu Ser Glu Pro Val	Leu Ala Val Asn Pro	Tyr Gly Pro Pro Asp
15145	15150	15155
Pro Pro Lys Asn Pro	Glu Val Thr Thr Ile	Thr Lys Asp Ser Met
15160	15165	15170
Val Val Cys Trp Gly	His Pro Asp Ser Asp	Gly Gly Ser Glu Ile
15175	15180	15185
Ile Asn Tyr Ile Val	Glu Arg Arg Asp Lys	Ala Gly Gln Arg Trp
15190	15195	15200
Ile Lys Cys Asn Lys	Lys Thr Leu Thr Asp	Leu Arg Tyr Lys Val
15205	15210	15215
Ser Gly Leu Thr Glu	Gly His Glu Tyr Glu	Phe Arg Ile Met Ala
15220	15225	15230
Glu Asn Ala Ala Gly	Ile Ser Ala Pro Ser	Pro Thr Ser Pro Phe
15235	15240	15245
Tyr Lys Ala Cys Asp	Thr Val Phe Lys Pro	Gly Pro Pro Gly Asn
15250	15255	15260
Pro Arg Val Leu Asp	Thr Ser Arg Ser Ser	Ile Ser Ile Ala Trp
15265	15270	15275
Asn Lys Pro Ile Tyr	Asp Gly Gly Ser Glu	Ile Thr Gly Tyr Met
15280	15285	15290
Val Glu Ile Ala Leu	Pro Glu Glu Asp Glu	Trp Gln Ile Val Thr
15295	15300	15305
Pro Pro Ala Gly Leu	Lys Ala Thr Ser Tyr	Thr Ile Thr Gly Leu

15310	Thr Glu Asn Gln Glu	15315	Tyr Lys Ile Arg Ile	15320	Tyr Ala Met Asn Ser
15325	Glu Gly Leu Gly Glu	15330	Pro Ala Leu Val Pro	15335	Gly Thr Pro Lys Ala
15340	Glu Asp Arg Met Leu	15345	Pro Pro Glu Ile Glu	15350	Leu Asp Ala Asp Leu
15355	Arg Lys Val Val Thr	15360	Ile Arg Ala Cys Cys	15365	Thr Leu Arg Leu Phe
15370	Val Pro Ile Lys Gly	15375	Arg Pro Asp Pro Glu	15380	Val Lys Trp Ala Arg
15385	Asp His Gly Glu Ser	15390	Leu Asp Lys Ala Ser	15395	Ile Glu Ser Ala Ser
15400	Ser Tyr Thr Leu Leu	15405	Ile Val Gly Asn Val	15410	Asn Arg Phe Asp Ser
15415	Gly Lys Tyr Ile Leu	15420	Thr Val Glu Asn Ser	15425	Ser Gly Ser Lys Ser
15430	Ala Phe Val Asn Val	15435	Arg Val Leu Asp Thr	15440	Pro Gly Pro Pro Gln
15445	Asp Leu Lys Val Lys	15450	Glu Val Thr Lys Thr	15455	Ser Val Thr Leu Thr
15460	Trp Asp Pro Pro Leu	15465	Leu Asp Gly Gly Ser	15470	Lys Ile Lys Asn Tyr
15475	Ile Val Glu Lys Arg	15480	Glu Ser Thr Arg Lys	15485	Ala Tyr Ser Thr Val
15490	Ala Thr Asn Cys His	15495	Lys Thr Ser Trp Lys	15500	Val Asp Gln Leu Gln
15505	Glu Gly Cys Ser Tyr	15510	Tyr Phe Arg Val Leu	15515	Ala Glu Asn Glu Tyr
15520	Gly Ile Gly Leu Pro	15525	Ala Glu Thr Ala Glu	15530	Ser Val Lys Ala Ser
15535	Glu Arg Pro Leu Pro	15540	Pro Gly Lys Ile Thr	15545	Leu Met Asp Val Thr
15550	Arg Asn Ser Val Ser	15555	Leu Ser Trp Glu Lys	15560	Pro Glu His Asp Gly
15565	Gly Ser Arg Ile Leu	15570	Gly Tyr Ile Val Glu	15575	Met Gln Thr Lys Gly
15580	Ser Asp Lys Trp Ala	15585	Thr Cys Ala Thr Val	15590	Lys Val Thr Glu Ala
15595	Thr Ile Thr Gly Leu	15600	Ile Gln Gly Glu Glu	15605	Tyr Ser Phe Arg Val
15610	Ser Ala Gln Asn Glu	15615	Lys Gly Ile Ser Asp	15620	Pro Arg Gln Leu Ser
15625	Val Pro Val Ile Ala	15630	Lys Asp Leu Val Ile	15635	Pro Pro Ala Phe Lys
15640	Leu Leu Phe Asn Thr	15645	Phe Thr Val Leu Ala	15650	Gly Glu Asp Leu Lys
15655	Val Asp Val Pro Phe	15660	Ile Gly Arg Pro Thr	15665	Pro Ala Val Thr Trp
15670	His Lys Asp Asn Val	15675	Pro Leu Lys Gln Thr	15680	Thr Arg Val Asn Ala
15685	Glu Ser Thr Glu Asn	15690	Asn Ser Leu Leu Thr	15695	Ile Lys Asp Ala Cys
15700	Arg Glu Asp Val Gly	15705	His Tyr Val Val Lys	15710	Leu Thr Asn Ser Ala
15715	Gly Glu Ala Ile Glu	15720	Thr Leu Asn Val Ile	15725	Val Leu Asp Lys Pro
15730	Gly Pro Pro Thr Gly	15735	Pro Val Lys Met Asp	15740	Glu Val Thr Ala Asp
15745		15750		15755	

Ser	Ile	Thr	Leu	Ser	Trp	Gly	Pro	Pro	Lys	Tyr	Asp	Gly	Gly	Ser
15760					15765					15770				
Ser	Ile	Asn	Asn	Tyr	Ile	Val	Glu	Lys	Arg	Asp	Thr	Ser	Thr	Thr
15775					15780					15785				
Thr	Trp	Gln	Ile	Val	Ser	Ala	Thr	Val	Ala	Arg	Thr	Thr	Ile	Lys
15790					15795					15800				
Ala	Cys	Arg	Leu	Lys	Thr	Gly	Cys	Glu	Tyr	Gln	Phe	Arg	Ile	Ala
15805					15810					15815				
Ala	Glu	Asn	Arg	Tyr	Gly	Lys	Ser	Thr	Tyr	Leu	Asn	Ser	Glu	Pro
15820					15825					15830				
Thr	Val	Ala	Gln	Tyr	Pro	Phe	Lys	Val	Pro	Gly	Pro	Pro	Gly	Thr
15835					15840					15845				
Pro	Val	Val	Thr	Leu	Ser	Ser	Arg	Asp	Ser	Met	Glu	Val	Gln	Trp
15850					15855					15860				
Asn	Glu	Pro	Ile	Ser	Asp	Gly	Gly	Ser	Arg	Val	Ile	Gly	Tyr	His
15865					15870					15875				
Leu	Glu	Arg	Lys	Glu	Arg	Asn	Ser	Ile	Leu	Trp	Val	Lys	Leu	Asn
15880					15885					15890				
Lys	Thr	Pro	Ile	Pro	Gln	Thr	Lys	Phe	Lys	Thr	Thr	Gly	Leu	Glu
15895					15900					15905				
Glu	Gly	Val	Glu	Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Ile	Val
15910					15915					15920				
Gly	Ile	Gly	Lys	Pro	Ser	Lys	Val	Ser	Glu	Cys	Tyr	Val	Ala	Arg
15925					15930					15935				
Asp	Pro	Cys	Asp	Pro	Pro	Gly	Arg	Pro	Glu	Ala	Ile	Ile	Val	Thr
15940					15945					15950				
Arg	Asn	Ser	Val	Thr	Leu	Gln	Trp	Lys	Lys	Pro	Thr	Tyr	Asp	Gly
15955					15960					15965				
Gly	Ser	Lys	Ile	Thr	Gly	Tyr	Ile	Val	Glu	Lys	Lys	Glu	Leu	Pro
15970					15975					15980				
Glu	Gly	Arg	Trp	Met	Lys	Ala	Ser	Phe	Thr	Asn	Ile	Ile	Asp	Thr
15985					15990					15995				
His	Phe	Glu	Val	Thr	Gly	Leu	Val	Glu	Asp	His	Arg	Tyr	Glu	Phe
16000					16005					16010				
Arg	Val	Ile	Ala	Arg	Asn	Ala	Ala	Gly	Val	Phe	Ser	Glu	Pro	Ser
16015					16020					16025				
Glu	Ser	Thr	Gly	Ala	Ile	Thr	Ala	Arg	Asp	Glu	Val	Asp	Pro	Pro
16030					16035					16040				
Arg	Ile	Ser	Met	Asp	Pro	Lys	Tyr	Lys	Asp	Thr	Ile	Val	Val	His
16045					16050					16055				
Ala	Gly	Glu	Ser	Phe	Lys	Val	Asp	Ala	Asp	Ile	Tyr	Gly	Lys	Pro
16060					16065					16070				
Ile	Pro	Thr	Ile	Gln	Trp	Ile	Lys	Gly	Asp	Gln	Glu	Leu	Ser	Asn
16075					16080					16085				
Thr	Ala	Arg	Leu	Glu	Ile	Lys	Ser	Thr	Asp	Phe	Ala	Thr	Ser	Leu
16090					16095					16100				
Ser	Val	Lys	Asp	Ala	Val	Arg	Val	Asp	Ser	Gly	Asn	Tyr	Ile	Leu
16105					16110					16115				
Lys	Ala	Lys	Asn	Val	Ala	Gly	Glu	Arg	Ser	Val	Thr	Val	Asn	Val
16120					16125					16130				
Lys	Val	Leu	Asp	Arg	Pro	Gly	Pro	Pro	Glu	Gly	Pro	Val	Val	Ile
16135					16140					16145				
Ser	Gly	Val	Thr	Ala	Glu	Lys	Cys	Thr	Leu	Ala	Trp	Lys	Pro	Pro
16150					16155					16160				
Leu	Gln	Asp	Gly	Gly	Ser	Asp	Ile	Ile	Asn	Tyr	Ile	Val	Glu	Arg
16165					16170					16175				
Arg	Glu	Thr	Ser	Arg	Leu	Val	Trp	Thr	Val	Val	Asp	Ala	Asn	Val
16180					16185					16190				
Gln	Thr	Leu	Ser	Cys	Lys	Val	Thr	Lys	Leu	Leu	Glu	Gly	Asn	Glu

16195	16200	16205
Tyr Thr Phe Arg Ile	Met Ala Val Asn Lys	Tyr Gly Val Gly Glu
16210	16215	16220
Pro Leu Glu Ser Glu	Pro Val Val Ala Lys	Asn Pro Phe Val Val
16225	16230	16235
Pro Asp Ala Pro Lys	Ala Pro Glu Val Thr	Thr Val Thr Lys Asp
16240	16245	16250
Ser Met Ile Val Val	Trp Glu Arg Pro Ala	Ser Asp Gly Gly Ser
16255	16260	16265
Glu Ile Leu Gly Tyr	Val Leu Glu Lys Arg	Asp Lys Glu Gly Ile
16270	16275	16280
Arg Trp Thr Arg Cys	His Lys Arg Leu Ile	Gly Glu Leu Arg Leu
16285	16290	16295
Arg Val Thr Gly Leu	Ile Glu Asn His Asp	Tyr Glu Phe Arg Val
16300	16305	16310
Ser Ala Glu Asn Ala	Ala Gly Leu Ser Glu	Pro Ser Pro Pro Ser
16315	16320	16325
Ala Tyr Gln Lys Ala	Cys Asp Pro Ile Tyr	Lys Pro Gly Pro Pro
16330	16335	16340
Asn Asn Pro Lys Val	Ile Asp Ile Thr Arg	Ser Ser Val Phe Leu
16345	16350	16355
Ser Trp Ser Lys Pro	Ile Tyr Asp Gly Gly	Cys Glu Ile Gln Gly
16360	16365	16370
Tyr Ile Val Glu Lys	Cys Asp Val Asn Val	Gly Glu Trp Thr Met
16375	16380	16385
Cys Thr Pro Pro Thr	Gly Ile Asn Lys Thr	Asn Ile Glu Val Glu
16390	16395	16400
Lys Leu Leu Glu Lys	His Glu Tyr Asn Phe	Arg Ile Cys Ala Ile
16405	16410	16415
Asn Lys Ala Gly Val	Gly Glu His Ala Asp	Val Pro Gly Pro Ile
16420	16425	16430
Ile Val Glu Glu Lys	Leu Glu Ala Pro Asp	Ile Asp Leu Asp Leu
16435	16440	16445
Glu Leu Arg Lys Ile	Ile Asn Ile Arg Ala	Gly Gly Ser Leu Arg
16450	16455	16460
Leu Phe Val Pro Ile	Lys Gly Arg Pro Thr	Pro Glu Val Lys Trp
16465	16470	16475
Gly Lys Val Asp Gly	Glu Ile Arg Asp Ala	Ala Ile Ile Asp Val
16480	16485	16490
Thr Ser Ser Phe Thr	Ser Leu Val Leu Asp	Asn Val Asn Arg Tyr
16495	16500	16505
Asp Ser Gly Lys Tyr	Thr Leu Thr Leu Glu	Asn Ser Ser Gly Thr
16510	16515	16520
Lys Ser Ala Phe Val	Thr Val Arg Val Leu	Asp Thr Pro Ser Pro
16525	16530	16535
Pro Val Asn Leu Lys	Val Thr Glu Ile Thr	Lys Asp Ser Val Ser
16540	16545	16550
Ile Thr Trp Glu Pro	Pro Leu Leu Asp Gly	Gly Ser Lys Ile Lys
16555	16560	16565
Asn Tyr Ile Val Glu	Lys Arg Glu Ala Thr	Arg Lys Ser Tyr Ala
16570	16575	16580
Ala Val Val Thr Asn	Cys His Lys Asn Ser	Trp Lys Ile Asp Gln
16585	16590	16595
Leu Gln Glu Gly Cys	Ser Tyr Tyr Phe Arg	Val Thr Ala Glu Asn
16600	16605	16610
Glu Tyr Gly Ile Gly	Leu Pro Ala Gln Thr	Ala Asp Pro Ile Lys
16615	16620	16625
Val Ala Glu Val Pro	Gln Pro Pro Gly Lys	Ile Thr Val Asp Asp
16630	16635	16640

Val Thr Arg Asn Ser	Val Ser Leu Ser Trp	Thr Lys Pro Glu His
16645	16650	16655
Asp Gly Gly Ser Lys	Ile Ile Gln Tyr Ile	Val Glu Met Gln Ala
16660	16665	16670
Lys His Ser Glu Lys	Trp Ser Glu Cys Ala	Arg Val Lys Ser Leu
16675	16680	16685
Gln Ala Val Ile Thr	Asn Leu Thr Gln Gly	Glu Glu Tyr Leu Phe
16690	16695	16700
Arg Val Val Ala Val	Asn Glu Lys Gly Arg	Ser Asp Pro Arg Ser
16705	16710	16715
Leu Ala Val Pro Ile	Val Ala Lys Asp Leu	Val Ile Glu Pro Asp
16720	16725	16730
Val Lys Pro Ala Phe	Ser Ser Tyr Ser Val	Gln Val Gly Gln Asp
16735	16740	16745
Leu Lys Ile Glu Val	Pro Ile Ser Gly Arg	Pro Lys Pro Thr Ile
16750	16755	16760
Thr Trp Thr Lys Asp	Gly Leu Pro Leu Lys	Gln Thr Thr Arg Ile
16765	16770	16775
Asn Val Thr Asp Ser	Leu Asp Leu Thr Thr	Leu Ser Ile Lys Glu
16780	16785	16790
Thr His Lys Asp Asp	Gly Gly Gln Tyr Gly	Ile Thr Val Ala Asn
16795	16800	16805
Val Val Gly Gln Lys	Thr Ala Ser Ile Glu	Ile Val Thr Leu Asp
16810	16815	16820
Lys Pro Asp Pro Pro	Lys Gly Pro Val Lys	Phe Asp Asp Val Ser
16825	16830	16835
Ala Glu Ser Ile Thr	Leu Ser Trp Asn Pro	Pro Leu Tyr Thr Gly
16840	16845	16850
Gly Cys Gln Ile Thr	Asn Tyr Ile Val Gln	Lys Arg Asp Thr Thr
16855	16860	16865
Thr Thr Val Trp Asp	Val Val Ser Ala Thr	Val Ala Arg Thr Thr
16870	16875	16880
Leu Lys Val Thr Lys	Leu Lys Thr Gly Thr	Glu Tyr Gln Phe Arg
16885	16890	16895
Ile Phe Ala Glu Asn	Arg Tyr Gly Gln Ser	Phe Ala Leu Glu Ser
16900	16905	16910
Asp Pro Ile Val Ala	Gln Tyr Pro Tyr Lys	Glu Pro Gly Pro Pro
16915	16920	16925
Gly Thr Pro Phe Ala	Thr Ala Ile Ser Lys	Asp Ser Met Val Ile
16930	16935	16940
Gln Trp His Glu Pro	Val Asn Asn Gly Gly	Ser Pro Val Ile Gly
16945	16950	16955
Tyr His Leu Glu Arg	Lys Glu Arg Asn Ser	Ile Leu Trp Thr Lys
16960	16965	16970
Val Asn Lys Thr Ile	Ile His Asp Thr Gln	Phe Lys Ala Gln Asn
16975	16980	16985
Leu Glu Glu Gly Ile	Glu Tyr Glu Phe Arg	Val Tyr Ala Glu Asn
16990	16995	17000
Ile Val Gly Val Gly	Lys Ala Ser Lys Asn	Ser Glu Cys Tyr Val
17005	17010	17015
Ala Arg Asp Pro Cys	Asp Pro Pro Gly Thr	Pro Glu Pro Ile Met
17020	17025	17030
Val Lys Arg Asn Glu	Ile Thr Leu Gln Trp	Thr Lys Pro Val Tyr
17035	17040	17045
Asp Gly Gly Ser Met	Ile Thr Gly Tyr Ile	Val Glu Lys Arg Asp
17050	17055	17060
Leu Pro Asp Gly Arg	Trp Met Lys Ala Ser	Phe Thr Asn Val Ile
17065	17070	17075
Glu Thr Gln Phe Thr	Val Ser Gly Leu Thr	Glu Asp Gln Arg Tyr

17080	17085	17090
Glu Phe Arg Val Ile	Ala Lys Asn Ala Ala	Gly Ala Ile Ser Lys
17095	17100	17105
Pro Ser Asp Ser Thr	Gly Pro Ile Thr Ala	Lys Asp Glu Val Glu
17110	17115	17120
Leu Pro Arg Ile Ser	Met Asp Pro Lys Phe	Arg Asp Thr Ile Val
17125	17130	17135
Val Asn Ala Gly Glu	Thr Phe Arg Leu Glu	Ala Asp Val His Gly
17140	17145	17150
Lys Pro Leu Pro Thr	Ile Glu Trp Leu Arg	Gly Asp Lys Glu Ile
17155	17160	17165
Glu Glu Ser Ala Arg	Cys Glu Ile Lys Asn	Thr Asp Phe Lys Ala
17170	17175	17180
Leu Leu Ile Val Lys	Asp Ala Ile Arg Ile	Asp Gly Gly Gln Tyr
17185	17190	17195
Ile Leu Arg Ala Ser	Asn Val Ala Gly Ser	Lys Ser Phe Pro Val
17200	17205	17210
Asn Val Lys Val Leu	Asp Arg Pro Gly Pro	Pro Glu Gly Pro Val
17215	17220	17225
Gln Val Thr Gly Val	Thr Ser Glu Lys Cys	Ser Leu Thr Trp Ser
17230	17235	17240
Pro Pro Leu Gln Asp	Gly Gly Ser Asp Ile	Ser His Tyr Val Val
17245	17250	17255
Glu Lys Arg Glu Thr	Ser Arg Leu Ala Trp	Thr Val Val Ala Ser
17260	17265	17270
Glu Val Val Thr Asn	Ser Leu Lys Val Thr	Lys Leu Leu Glu Gly
17275	17280	17285
Asn Glu Tyr Val Phe	Arg Ile Met Ala Val	Asn Lys Tyr Gly Val
17290	17295	17300
Gly Glu Pro Leu Glu	Ser Ala Pro Val Leu	Met Lys Asn Pro Phe
17305	17310	17315
Val Leu Pro Gly Pro	Pro Lys Ser Leu Glu	Val Thr Asn Ile Ala
17320	17325	17330
Lys Asp Ser Met Thr	Val Cys Trp Asn Arg	Pro Asp Ser Asp Gly
17335	17340	17345
Gly Ser Glu Ile Ile	Gly Tyr Ile Val Glu	Lys Arg Asp Arg Ser
17350	17355	17360
Gly Ile Arg Trp Ile	Lys Cys Asn Lys Arg	Arg Ile Thr Asp Leu
17365	17370	17375
Arg Leu Arg Val Thr	Gly Leu Thr Glu Asp	His Glu Tyr Glu Phe
17380	17385	17390
Arg Val Ser Ala Glu	Asn Ala Ala Gly Val	Gly Glu Pro Ser Pro
17395	17400	17405
Ala Thr Val Tyr Tyr	Lys Ala Cys Asp Pro	Val Phe Lys Pro Gly
17410	17415	17420
Pro Pro Thr Asn Ala	His Ile Val Asp Thr	Thr Lys Asn Ser Ile
17425	17430	17435
Thr Leu Ala Trp Gly	Lys Pro Ile Tyr Asp	Gly Gly Ser Glu Ile
17440	17445	17450
Leu Gly Tyr Val Val	Glu Ile Cys Lys Ala	Asp Glu Glu Glu Trp
17455	17460	17465
Gln Ile Val Thr Pro	Gln Thr Gly Leu Arg	Val Thr Arg Phe Glu
17470	17475	17480
Ile Ser Lys Leu Thr	Glu His Gln Glu Tyr	Lys Ile Arg Val Cys
17485	17490	17495
Ala Leu Asn Lys Val	Gly Leu Gly Glu Ala	Thr Ser Val Pro Gly
17500	17505	17510
Thr Val Lys Pro Glu	Asp Lys Leu Glu Ala	Pro Glu Leu Asp Leu
17515	17520	17525

Asp Ser Glu Leu Arg	Lys Gly Ile Val Val	Arg Ala Gly Gly Ser
17530	17535	17540
Ala Arg Ile His Ile	Pro Phe Lys Gly Arg	Pro Met Pro Glu Ile
17545	17550	17555
Thr Trp Ser Arg Glu	Glu Gly Glu Phe Thr	Asp Lys Val Gln Ile
17560	17565	17570
Glu Lys Gly Val Asn	Tyr Thr Gln Leu Ser	Ile Asp Asn Cys Asp
17575	17580	17585
Arg Asn Asp Ala Gly	Lys Tyr Ile Leu Lys	Leu Glu Asn Ser Ser
17590	17595	17600
Gly Ser Lys Ser Ala	Phe Val Thr Val Lys	Val Leu Asp Thr Pro
17605	17610	17615
Gly Pro Pro Gln Asn	Leu Ala Val Lys Glu	Val Arg Lys Asp Ser
17620	17625	17630
Ala Phe Leu Val Trp	Glu Pro Pro Ile Ile	Asp Gly Gly Ala Lys
17635	17640	17645
Val Lys Asn Tyr Val	Ile Asp Lys Arg Glu	Ser Thr Arg Lys Ala
17650	17655	17660
Tyr Ala Asn Val Ser	Ser Lys Cys Ser Lys	Thr Ser Phe Lys Val
17665	17670	17675
Glu Asn Leu Thr Glu	Gly Ala Ile Tyr Tyr	Phe Arg Val Met Ala
17680	17685	17690
Glu Asn Glu Phe Gly	Val Gly Val Pro Val	Glu Thr Val Asp Ala
17695	17700	17705
Val Lys Ala Ala Glu	Pro Pro Ser Pro Pro	Gly Lys Val Thr Leu
17710	17715	17720
Thr Asp Val Ser Gln	Thr Ser Ala Ser Leu	Met Trp Glu Lys Pro
17725	17730	17735
Glu His Asp Gly Gly	Ser Arg Val Leu Gly	Tyr Val Val Glu Met
17740	17745	17750
Gln Pro Lys Gly Thr	Glu Lys Trp Ser Ile	Val Ala Glu Ser Lys
17755	17760	17765
Val Cys Asn Ala Val	Val Thr Gly Leu Ser	Ser Gly Gln Glu Tyr
17770	17775	17780
Gln Phe Arg Val Lys	Ala Tyr Asn Glu Lys	Gly Lys Ser Asp Pro
17785	17790	17795
Arg Val Leu Gly Val	Pro Val Ile Ala Lys	Asp Leu Thr Ile Gln
17800	17805	17810
Pro Ser Leu Lys Leu	Pro Phe Asn Thr Tyr	Ser Ile Gln Ala Gly
17815	17820	17825
Glu Asp Leu Lys Ile	Glu Ile Pro Val Ile	Gly Arg Pro Arg Pro
17830	17835	17840
Asn Ile Ser Trp Val	Lys Asp Gly Glu Pro	Leu Lys Gln Thr Thr
17845	17850	17855
Arg Val Asn Val Glu	Glu Thr Ala Thr Ser	Thr Val Leu His Ile
17860	17865	17870
Lys Glu Gly Asn Lys	Asp Asp Phe Gly Lys	Tyr Thr Val Thr Ala
17875	17880	17885
Thr Asn Ser Ala Gly	Thr Ala Thr Glu Asn	Leu Ser Val Ile Val
17890	17895	17900
Leu Glu Lys Pro Gly	Pro Pro Val Gly Pro	Val Arg Phe Asp Glu
17905	17910	17915
Val Ser Ala Asp Phe	Val Val Ile Ser Trp	Glu Pro Pro Ala Tyr
17920	17925	17930
Thr Gly Gly Cys Gln	Ile Ser Asn Tyr Ile	Val Glu Lys Arg Asp
17935	17940	17945
Thr Thr Thr Thr Thr	Trp His Met Val Ser	Ala Thr Val Ala Arg
17950	17955	17960
Thr Thr Ile Lys Ile	Thr Lys Leu Lys Thr	Gly Thr Glu Tyr Gln

17965	Phe Arg Ile Phe Ala	17970	Glu Asn Arg Tyr Gly	17975	Lys Ser Ala Pro Leu
17980	Asp Ser Lys Ala Val	17985	Ile Val Gln Tyr Pro	17990	Phe Lys Glu Pro Gly
17995	Pro Pro Gly Thr Pro	18000	Phe Val Thr Ser Ile	18005	Ser Lys Asp Gln Met
18010	Leu Val Gln Trp His	18015	Glu Pro Val Asn Asp	18020	Gly Gly Thr Lys Ile
18025	Ile Gly Tyr His Leu	18030	Glu Gln Lys Glu Lys	18035	Asn Ser Ile Leu Trp
18040	Val Lys Leu Asn Lys	18045	Thr Pro Ile Gln Asp	18050	Thr Lys Phe Lys Thr
18055	Thr Gly Leu Asp Glu	18060	Gly Leu Glu Tyr Glu	18065	Phe Lys Val Ser Ala
18070	Glu Asn Ile Val Gly	18075	Ile Gly Lys Pro Ser	18080	Lys Val Ser Glu Cys
18085	Phe Val Ala Arg Asp	18090	Pro Cys Asp Pro Pro	18095	Gly Arg Pro Glu Ala
18100	Ile Val Ile Thr Arg	18105	Asn Asn Val Thr Leu	18110	Lys Trp Lys Lys Pro
18115	Ala Tyr Asp Gly Gly	18120	Ser Lys Ile Thr Gly	18125	Tyr Ile Val Glu Lys
18130	Lys Asp Leu Pro Asp	18135	Gly Arg Trp Met Lys	18140	Ala Ser Phe Thr Asn
18145	Val Leu Glu Thr Glu	18150	Phe Thr Val Ser Gly	18155	Leu Val Glu Asp Gln
18160	Arg Tyr Glu Phe Arg	18165	Val Ile Ala Arg Asn	18170	Ala Ala Gly Asn Phe
18175	Ser Glu Pro Ser Asp	18180	Ser Ser Gly Ala Ile	18185	Thr Ala Arg Asp Glu
18190	Ile Asp Ala Pro Asn	18195	Ala Ser Leu Asp Pro	18200	Lys Tyr Lys Asp Val
18205	Ile Val Val His Ala	18210	Gly Glu Thr Phe Val	18215	Leu Glu Ala Asp Ile
18220	Arg Gly Lys Pro Ile	18225	Pro Asp Val Val Trp	18230	Ser Lys Asp Gly Lys
18235	Glu Leu Glu Glu Thr	18240	Ala Ala Arg Met Glu	18245	Ile Lys Ser Thr Ile
18250	Gln Lys Thr Thr Leu	18255	Val Val Lys Asp Cys	18260	Ile Arg Thr Asp Gly
18265	Gly Gln Tyr Ile Leu	18270	Lys Leu Ser Asn Val	18275	Gly Gly Thr Lys Ser
18280	Ile Pro Ile Thr Val	18285	Lys Val Leu Asp Arg	18290	Pro Gly Ser Pro Glu
18295	Gly Pro Leu Lys Val	18300	Thr Gly Val Thr Ala	18305	Glu Lys Cys Tyr Leu
18310	Ala Trp Asn Pro Pro	18315	Leu Gln Asp Gly Gly	18320	Ala Asn Ile Ser His
18325	Tyr Ile Ile Glu Lys	18330	Arg Glu Thr Ser Arg	18335	Leu Ser Trp Thr Gln
18340	Val Ser Thr Glu Val	18345	Gln Ala Leu Asn Tyr	18350	Lys Val Thr Lys Leu
18355	Leu Pro Gly Asn Glu	18360	Tyr Ile Phe Arg Val	18365	Met Ala Val Asn Lys
18370	Tyr Gly Ile Gly Glu	18375	Pro Leu Glu Ser Gly	18380	Pro Val Thr Ala Cys
18385	Asn Pro Tyr Lys Pro	18390	Pro Gly Pro Pro Ser	18395	Thr Pro Glu Val Ser
18400		18405		18410	

Ala Ile Thr Lys Asp	Ser Met Val Val Thr	Trp Ala Arg Pro Val
18415	18420	18425
Asp Asp Gly Gly Thr	Glu Ile Glu Gly Tyr	Ile Leu Glu Lys Arg
18430	18435	18440
Asp Lys Glu Gly Val	Arg Trp Thr Lys Cys	Asn Lys Lys Thr Leu
18445	18450	18455
Thr Asp Leu Arg Leu	Arg Val Thr Gly Leu	Thr Glu Gly His Ser
18460	18465	18470
Tyr Glu Phe Arg Val	Ala Ala Glu Asn Ala	Ala Gly Val Gly Glu
18475	18480	18485
Pro Ser Glu Pro Ser	Val Phe Tyr Arg Ala	Cys Asp Ala Leu Tyr
18490	18495	18500
Pro Pro Gly Pro Pro	Ser Asn Pro Lys Val	Thr Asp Thr Ser Arg
18505	18510	18515
Ser Ser Val Ser Leu	Ala Trp Ser Lys Pro	Ile Tyr Asp Gly Gly
18520	18525	18530
Ala Pro Val Lys Gly	Tyr Val Val Glu Val	Lys Glu Ala Ala Ala
18535	18540	18545
Asp Glu Trp Thr Thr	Cys Thr Pro Pro Thr	Gly Leu Gln Gly Lys
18550	18555	18560
Gln Phe Thr Val Thr	Lys Leu Lys Glu Asn	Thr Glu Tyr Asn Phe
18565	18570	18575
Arg Ile Cys Ala Ile	Asn Ser Glu Gly Val	Gly Glu Pro Ala Thr
18580	18585	18590
Leu Pro Gly Ser Val	Val Ala Gln Glu Arg	Ile Glu Pro Pro Glu
18595	18600	18605
Ile Glu Leu Asp Ala	Asp Leu Arg Lys Val	Val Val Leu Arg Ala
18610	18615	18620
Ser Ala Thr Leu Arg	Leu Phe Val Thr Ile	Lys Gly Arg Pro Glu
18625	18630	18635
Pro Glu Val Lys Trp	Glu Lys Ala Glu Gly	Ile Leu Thr Asp Arg
18640	18645	18650
Ala Gln Ile Glu Val	Thr Ser Ser Phe Thr	Met Leu Val Ile Asp
18655	18660	18665
Asn Val Thr Arg Phe	Asp Ser Gly Arg Tyr	Asn Leu Thr Leu Glu
18670	18675	18680
Asn Asn Ser Gly Ser	Lys Thr Ala Phe Val	Asn Val Arg Val Leu
18685	18690	18695
Asp Ser Pro Ser Ala	Pro Val Asn Leu Thr	Ile Arg Glu Val Lys
18700	18705	18710
Lys Asp Ser Val Thr	Leu Ser Trp Glu Pro	Pro Leu Ile Asp Gly
18715	18720	18725
Gly Ala Lys Ile Thr	Asn Tyr Ile Val Glu	Lys Arg Glu Thr Thr
18730	18735	18740
Arg Lys Ala Tyr Ala	Thr Ile Thr Asn Asn	Cys Thr Lys Thr Thr
18745	18750	18755
Phe Arg Ile Glu Asn	Leu Gln Glu Gly Cys	Ser Tyr Tyr Phe Arg
18760	18765	18770
Val Leu Ala Ser Asn	Glu Tyr Gly Ile Gly	Leu Pro Ala Glu Thr
18775	18780	18785
Thr Glu Pro Val Lys	Val Ser Glu Pro Pro	Leu Pro Pro Gly Arg
18790	18795	18800
Val Thr Leu Val Asp	Val Thr Arg Asn Thr	Ala Thr Ile Lys Trp
18805	18810	18815
Glu Lys Pro Glu Ser	Asp Gly Gly Ser Lys	Ile Thr Gly Tyr Val
18820	18825	18830
Val Glu Met Gln Thr	Lys Gly Ser Glu Lys	Trp Ser Thr Cys Thr
18835	18840	18845
Gln Val Lys Thr Leu	Glu Ala Thr Ile Ser	Gly Leu Thr Ala Gly

18850	Glu Glu Tyr Val Phe	18855	Arg Val Ala Ala Val	18860	Asn Glu Lys Gly Arg
18865	Ser Asp Pro Arg Gln	18870	Leu Gly Val Pro Val	18875	Ile Ala Arg Asp Ile
18880	Glu Ile Lys Pro Ser	18885	Val Glu Leu Pro Phe	18890	His Thr Phe Asn Val
18895	Lys Ala Arg Glu Gln	18900	Leu Lys Ile Asp Val	18905	Pro Phe Lys Gly Arg
18910	Pro Gln Ala Thr Val	18915	Asn Trp Arg Lys Asp	18920	Gly Gln Thr Leu Lys
18925	Glu Thr Thr Arg Val	18930	Asn Val Ser Ser Ser	18935	Lys Thr Val Thr Ser
18940	Leu Ser Ile Lys Glu	18945	Ala Ser Lys Glu Asp	18950	Val Gly Thr Tyr Glu
18955	Leu Cys Val Ser Asn	18960	Ser Ala Gly Ser Ile	18965	Thr Val Pro Ile Thr
18970	Ile Ile Val Leu Asp	18975	Arg Pro Gly Pro Pro	18980	Gly Pro Ile Arg Ile
18985	Asp Glu Val Ser Cys	18990	Asp Ser Ile Thr Ile	18995	Ser Trp Asn Pro Pro
19000	Glu Tyr Asp Gly Gly	19005	Cys Gln Ile Ser Asn	19010	Tyr Ile Val Glu Lys
19015	Lys Glu Thr Thr Ser	19020	Thr Thr Trp His Ile	19025	Val Ser Gln Ala Val
19030	Ala Arg Thr Ser Ile	19035	Lys Ile Val Arg Leu	19040	Thr Thr Gly Ser Glu
19045	Tyr Gln Phe Arg Val	19050	Cys Ala Glu Asn Arg	19055	Tyr Gly Lys Ser Ser
19060	Tyr Ser Glu Ser Ser	19065	Ala Val Val Ala Glu	19070	Tyr Pro Phe Ser Pro
19075	Pro Gly Pro Pro Gly	19080	Thr Pro Lys Val Val	19085	His Ala Thr Lys Ser
19090	Thr Met Leu Val Thr	19095	Trp Gln Val Pro Val	19100	Asn Asp Gly Gly Ser
19105	Arg Val Ile Gly Tyr	19110	His Leu Glu Tyr Lys	19115	Glu Arg Ser Ser Ile
19120	Leu Trp Ser Lys Ala	19125	Asn Lys Ile Leu Ile	19130	Ala Asp Thr Gln Val
19135	Lys Val Ser Gly Leu	19140	Asp Glu Gly Leu Met	19145	Tyr Glu Tyr Arg Val
19150	Tyr Ala Glu Asn Ile	19155	Ala Gly Ile Gly Lys	19160	Cys Ser Lys Ser Cys
19165	Glu Pro Val Pro Ala	19170	Arg Asp Pro Cys Asp	19175	Pro Pro Gly Gln Pro
19180	Glu Val Thr Asn Ile	19185	Thr Arg Lys Ser Val	19190	Ser Leu Lys Trp Ser
19195	Lys Pro His Tyr Asp	19200	Gly Gly Ala Lys Ile	19205	Thr Gly Tyr Ile Val
19210	Glu Arg Arg Glu Leu	19215	Pro Asp Gly Arg Trp	19220	Leu Lys Cys Asn Tyr
19225	Thr Asn Ile Gln Glu	19230	Thr Tyr Phe Glu Val	19235	Thr Glu Leu Thr Glu
19240	Asp Gln Arg Tyr Glu	19245	Phe Arg Val Phe Ala	19250	Arg Asn Ala Ala Asp
19255	Ser Val Ser Glu Pro	19260	Ser Glu Ser Thr Gly	19265	Pro Ile Ile Val Lys
19270	Asp Asp Val Glu Pro	19275	Pro Arg Val Met Met	19280	Asp Val Lys Phe Arg
19285		19290		19295	

Asp Val Ile Val Val	Lys Ala Gly Glu Val	Leu Lys Ile Asn Ala
19300	19305	19310
Asp Ile Ala Gly Arg	Pro Leu Pro Val Ile	Ser Trp Ala Lys Asp
19315	19320	19325
Gly Ile Glu Ile Glu	Glu Arg Ala Arg Thr	Glu Ile Ile Ser Thr
19330	19335	19340
Asp Asn His Thr Leu	Leu Thr Val Lys Asp	Cys Ile Arg Arg Asp
19345	19350	19355
Thr Gly Gln Tyr Val	Leu Thr Leu Lys Asn	Val Ala Gly Thr Arg
19360	19365	19370
Ser Val Ala Val Asn	Cys Lys Val Leu Asp	Lys Pro Gly Pro Pro
19375	19380	19385
Ala Gly Pro Leu Glu	Ile Asn Gly Leu Thr	Ala Glu Lys Cys Ser
19390	19395	19400
Leu Ser Trp Gly Arg	Pro Gln Glu Asp Gly	Gly Ala Asp Ile Asp
19405	19410	19415
Tyr Tyr His Arg Lys	Lys Arg Glu Thr Ser	His Leu Ala Trp Thr
19420	19425	19430
Ile Cys Glu Gly Glu	Leu Gln Met Thr Ser	Cys Lys Val Thr Lys
19435	19440	19445
Leu Leu Lys Gly Asn	Glu Tyr Ile Phe Arg	Val Thr Gly Val Asn
19450	19455	19460
Lys Tyr Gly Val Gly	Glu Pro Leu Glu Ser	Val Ala Ile Lys Ala
19465	19470	19475
Leu Asp Pro Phe Thr	Val Pro Ser Pro Pro	Thr Ser Leu Glu Ile
19480	19485	19490
Thr Ser Val Thr Lys	Glu Ser Met Thr Leu	Cys Trp Ser Arg Pro
19495	19500	19505
Glu Ser Asp Gly Gly	Ser Glu Ile Ser Gly	Tyr Ile Ile Glu Arg
19510	19515	19520
Arg Glu Lys Asn Ser	Leu Arg Trp Val Arg	Val Asn Lys Lys Pro
19525	19530	19535
Val Tyr Asp Leu Arg	Val Lys Ser Thr Gly	Leu Arg Glu Gly Cys
19540	19545	19550
Glu Tyr Glu Tyr Arg	Val Tyr Ala Glu Asn	Ala Ala Gly Leu Ser
19555	19560	19565
Leu Pro Ser Glu Thr	Ser Pro Leu Ile Arg	Ala Glu Asp Pro Val
19570	19575	19580
Phe Leu Pro Ser Pro	Pro Ser Lys Pro Lys	Ile Val Asp Ser Gly
19585	19590	19595
Lys Thr Thr Ile Thr	Ile Ala Trp Val Lys	Pro Leu Phe Asp Gly
19600	19605	19610
Gly Ala Pro Ile Thr	Gly Tyr Thr Val Glu	Tyr Lys Lys Ser Asp
19615	19620	19625
Asp Thr Asp Trp Lys	Thr Ser Ile Gln Ser	Leu Arg Gly Thr Glu
19630	19635	19640
Tyr Thr Ile Ser Gly	Leu Thr Thr Gly Ala	Glu Tyr Val Phe Arg
19645	19650	19655
Val Lys Ser Val Asn	Lys Val Gly Ala Ser	Asp Pro Ser Asp Ser
19660	19665	19670
Ser Asp Pro Gln Ile	Ala Lys Glu Arg Glu	Glu Glu Pro Leu Phe
19675	19680	19685
Asp Ile Asp Ser Glu	Met Arg Lys Thr Leu	Ile Val Lys Ala Gly
19690	19695	19700
Ala Ser Phe Thr Met	Thr Val Pro Phe Arg	Gly Arg Pro Val Pro
19705	19710	19715
Asn Val Leu Trp Ser	Lys Pro Asp Thr Asp	Leu Arg Thr Arg Ala
19720	19725	19730
Tyr Val Asp Thr Thr	Asp Ser Arg Thr Ser	Leu Thr Ile Glu Asn

19735	Ala Asn Arg Asn Asp	19740	Ser Gly Lys Tyr Thr	19745	Leu Thr Ile Gln Asn
19750	Val Leu Ser Ala Ala	19755	Ser Leu Thr Leu Val	19760	Val Lys Val Leu Asp
19765	Thr Pro Gly Pro Pro	19770	Thr Asn Ile Thr Val	19775	Gln Asp Val Thr Lys
19780	Glu Ser Ala Val Leu	19785	Ser Trp Asp Val Pro	19790	Glu Asn Asp Gly Gly
19795	Ala Pro Val Lys Asn	19800	Tyr His Ile Glu Lys	19805	Arg Glu Ala Ser Lys
19810	Lys Ala Trp Val Ser	19815	Val Thr Asn Asn Cys	19820	Asn Arg Leu Ser Tyr
19825	Lys Val Thr Asn Leu	19830	Gln Glu Gly Ala Ile	19835	Tyr Tyr Phe Arg Val
19840	Ser Gly Glu Asn Glu	19845	Phe Gly Val Gly Ile	19850	Pro Ala Glu Thr Lys
19855	Glu Gly Val Lys Ile	19860	Thr Glu Lys Pro Ser	19865	Pro Pro Glu Lys Leu
19870	Gly Val Thr Ser Ile	19875	Ser Lys Asp Ser Val	19880	Ser Leu Thr Trp Leu
19885	Lys Pro Glu His Asp	19890	Gly Gly Ser Arg Ile	19895	Val His Tyr Val Val
19900	Glu Ala Leu Glu Lys	19905	Gly Gln Lys Asn Trp	19910	Val Lys Cys Ala Val
19915	Ala Lys Ser Thr His	19920	His Val Val Ser Gly	19925	Leu Arg Glu Asn Ser
19930	Glu Tyr Phe Phe Arg	19935	Val Phe Ala Glu Asn	19940	Gln Ala Gly Leu Ser
19945	Asp Pro Arg Glu Leu	19950	Leu Leu Pro Val Leu	19955	Ile Lys Glu Gln Leu
19960	Glu Pro Pro Glu Ile	19965	Asp Met Lys Asn Phe	19970	Pro Ser His Thr Val
19975	Tyr Val Arg Ala Gly	19980	Ser Asn Leu Lys Val	19985	Asp Ile Pro Ile Ser
19990	Gly Lys Pro Leu Pro	19995	Lys Val Thr Leu Ser	20000	Arg Asp Gly Val Pro
20005	Leu Lys Ala Thr Met	20010	Arg Phe Asn Thr Glu	20015	Ile Thr Ala Glu Asn
20020	Leu Thr Ile Asn Leu	20025	Lys Glu Ser Val Thr	20030	Ala Asp Ala Gly Arg
20035	Tyr Glu Ile Thr Ala	20040	Ala Asn Ser Ser Gly	20045	Thr Thr Lys Ala Phe
20050	Ile Asn Ile Val Val	20055	Leu Asp Arg Pro Gly	20060	Pro Pro Thr Gly Pro
20065	Val Val Ile Ser Asp	20070	Ile Thr Glu Glu Ser	20075	Val Thr Leu Lys Trp
20080	Glu Pro Pro Lys Tyr	20085	Asp Gly Gly Ser Gln	20090	Val Thr Asn Tyr Ile
20095	Leu Leu Lys Arg Glu	20100	Thr Ser Thr Ala Val	20105	Trp Thr Glu Val Ser
20110	Ala Thr Val Ala Arg	20115	Thr Met Met Lys Val	20120	Met Lys Leu Thr Thr
20125	Gly Glu Glu Tyr Gln	20130	Phe Arg Ile Lys Ala	20135	Glu Asn Arg Phe Gly
20140	Ile Ser Asp His Ile	20145	Asp Ser Ala Cys Val	20150	Thr Val Lys Leu Pro
20155	Tyr Thr Thr Pro Gly	20160	Pro Pro Ser Thr Pro	20165	Trp Val Thr Asn Val
20170		20175		20180	

Thr	Arg	Glu	Ser	Ile	Thr	Val	Gly	Trp	His	Glu	Pro	Val	Ser	Asn
20185					20190					20195				
Gly	Gly	Ser	Ala	Val	Val	Gly	Tyr	His	Leu	Glu	Met	Lys	Asp	Arg
20200					20205					20210				
Asn	Ser	Ile	Leu	Trp	Gln	Lys	Ala	Asn	Lys	Leu	Val	Ile	Arg	Thr
20215					20220					20225				
Thr	His	Phe	Lys	Val	Thr	Thr	Ile	Ser	Ala	Gly	Leu	Ile	Tyr	Glu
20230					20235					20240				
Phe	Arg	Val	Tyr	Ala	Glu	Asn	Ala	Ala	Gly	Val	Gly	Lys	Pro	Ser
20245					20250					20255				
His	Pro	Ser	Glu	Pro	Val	Leu	Ala	Ile	Asp	Ala	Cys	Glu	Pro	Pro
20260					20265					20270				
Arg	Asn	Val	Arg	Ile	Thr	Asp	Ile	Ser	Lys	Asn	Ser	Val	Ser	Leu
20275					20280					20285				
Ser	Trp	Gln	Gln	Pro	Ala	Phe	Asp	Gly	Gly	Ser	Lys	Ile	Thr	Gly
20290					20295					20300				
Tyr	Ile	Val	Glu	Arg	Arg	Asp	Leu	Pro	Asp	Gly	Arg	Trp	Thr	Lys
20305					20310					20315				
Ala	Ser	Phe	Thr	Asn	Val	Thr	Glu	Thr	Gln	Phe	Thr	Ile	Ser	Gly
20320					20325					20330				
Leu	Thr	Gln	Asn	Ser	Gln	Tyr	Glu	Phe	Arg	Val	Phe	Ala	Arg	Asn
20335					20340					20345				
Ala	Val	Gly	Ser	Ile	Ser	Asn	Pro	Ser	Glu	Val	Val	Gly	Pro	Ile
20350					20355					20360				
Thr	Cys	Ile	Asp	Ser	Tyr	Gly	Gly	Pro	Val	Ile	Asp	Leu	Pro	Leu
20365					20370					20375				
Glu	Tyr	Thr	Glu	Val	Val	Lys	Tyr	Arg	Ala	Gly	Thr	Ser	Val	Lys
20380					20385					20390				
Leu	Arg	Ala	Gly	Ile	Ser	Gly	Lys	Pro	Ala	Pro	Thr	Ile	Glu	Trp
20395					20400					20405				
Tyr	Lys	Asp	Asp	Lys	Glu	Leu	Gln	Thr	Asn	Ala	Leu	Val	Cys	Val
20410					20415					20420				
Glu	Asn	Thr	Thr	Asp	Leu	Ala	Ser	Ile	Leu	Ile	Lys	Asp	Ala	Asp
20425					20430					20435				
Arg	Leu	Asn	Ser	Gly	Cys	Tyr	Glu	Leu	Lys	Leu	Arg	Asn	Ala	Met
20440					20445					20450				
Ala	Ser	Ala	Ser	Ala	Thr	Ile	Arg	Val	Gln	Ile	Leu	Asp	Lys	Pro
20455					20460					20465				
Gly	Pro	Pro	Gly	Gly	Pro	Ile	Glu	Phe	Lys	Thr	Val	Thr	Ala	Glu
20470					20475					20480				
Lys	Ile	Thr	Leu	Leu	Trp	Arg	Pro	Pro	Ala	Asp	Asp	Gly	Gly	Ala
20485					20490					20495				
Lys	Ile	Thr	His	Tyr	Ile	Val	Glu	Lys	Arg	Glu	Thr	Ser	Arg	Val
20500					20505					20510				
Val	Trp	Ser	Met	Val	Ser	Glu	His	Leu	Glu	Glu	Cys	Ile	Ile	Thr
20515					20520					20525				
Thr	Thr	Lys	Ile	Ile	Lys	Gly	Asn	Glu	Tyr	Ile	Phe	Arg	Val	Arg
20530					20535					20540				
Ala	Val	Asn	Lys	Tyr	Gly	Ile	Gly	Glu	Pro	Leu	Glu	Ser	Asp	Ser
20545					20550					20555				
Val	Val	Ala	Lys	Asn	Ala	Phe	Val	Thr	Pro	Gly	Pro	Pro	Gly	Ile
20560					20565					20570				
Pro	Glu	Val	Thr	Lys	Ile	Thr	Lys	Asn	Ser	Met	Thr	Val	Val	Trp
20575					20580					20585				
Ser	Arg	Pro	Ile	Ala	Asp	Gly	Gly	Ser	Asp	Ile	Ser	Gly	Tyr	Phe
20590					20595					20600				
Leu	Glu	Lys	Arg	Asp	Lys	Lys	Ser	Leu	Gly	Trp	Phe	Lys	Val	Leu
20605					20610					20615				
Lys	Glu	Thr	Ile	Arg	Asp	Thr	Arg	Gln	Lys	Val	Thr	Gly	Leu	Thr

20620	20625	20630
Glu Asn Ser Asp Tyr	Gln Tyr Arg Val Cys	Ala Val Asn Ala Ala
20635	20640	20645
Gly Gln Gly Pro Phe	Ser Glu Pro Ser Glu	Phe Tyr Lys Ala Ala
20650	20655	20660
Asp Pro Ile Asp Pro	Pro Gly Pro Pro Ala	Lys Ile Arg Ile Ala
20665	20670	20675
Asp Ser Thr Lys Ser	Ser Ile Thr Leu Gly	Trp Ser Lys Pro Val
20680	20685	20690
Tyr Asp Gly Gly Ser	Ala Val Thr Gly Tyr	Val Val Glu Ile Arg
20695	20700	20705
Gln Gly Glu Glu Glu	Glu Trp Thr Thr Val	Ser Thr Lys Gly Glu
20710	20715	20720
Val Arg Thr Thr Glu	Tyr Val Val Ser Asn	Leu Lys Pro Gly Val
20725	20730	20735
Asn Tyr Tyr Phe Arg	Val Ser Ala Val Asn	Cys Ala Gly Gln Gly
20740	20745	20750
Glu Pro Ile Glu Met	Asn Glu Pro Val Gln	Ala Lys Asp Ile Leu
20755	20760	20765
Glu Ala Pro Glu Ile	Asp Leu Asp Val Ala	Leu Arg Thr Ser Val
20770	20775	20780
Ile Ala Lys Ala Gly	Glu Asp Val Gln Val	Leu Ile Pro Phe Lys
20785	20790	20795
Gly Arg Pro Pro Pro	Thr Val Thr Trp Arg	Lys Asp Glu Lys Asn
20800	20805	20810
Leu Gly Ser Asp Ala	Arg Tyr Ser Ile Glu	Asn Thr Asp Ser Ser
20815	20820	20825
Ser Leu Leu Thr Ile	Pro Gln Val Thr Arg	Asn Asp Thr Gly Lys
20830	20835	20840
Tyr Ile Leu Thr Ile	Glu Asn Gly Val Gly	Glu Pro Lys Ser Ser
20845	20850	20855
Thr Val Ser Val Lys	Val Leu Asp Thr Pro	Ala Ala Cys Gln Lys
20860	20865	20870
Leu Gln Val Lys His	Val Ser Arg Gly Thr	Val Thr Leu Leu Trp
20875	20880	20885
Asp Pro Pro Leu Ile	Asp Gly Gly Ser Pro	Ile Ile Asn Tyr Val
20890	20895	20900
Ile Glu Lys Arg Asp	Ala Thr Lys Arg Thr	Trp Ser Val Val Ser
20905	20910	20915
His Lys Cys Ser Ser	Thr Ser Phe Lys Leu	Ile Asp Leu Ser Glu
20920	20925	20930
Lys Thr Pro Phe Phe	Phe Arg Val Leu Ala	Glu Asn Glu Ile Gly
20935	20940	20945
Ile Gly Glu Pro Cys	Glu Thr Thr Glu Pro	Val Lys Ala Ala Glu
20950	20955	20960
Val Pro Ala Pro Ile	Arg Asp Leu Ser Met	Lys Asp Ser Thr Lys
20965	20970	20975
Thr Ser Val Ile Leu	Ser Trp Thr Lys Pro	Asp Phe Asp Gly Gly
20980	20985	20990
Ser Val Ile Thr Glu	Tyr Val Val Glu Arg	Lys Gly Lys Gly Glu
20995	21000	21005
Gln Thr Trp Ser His	Ala Gly Ile Ser Lys	Thr Cys Glu Ile Glu
21010	21015	21020
Val Ser Gln Leu Lys	Glu Gln Ser Val Leu	Glu Phe Arg Val Phe
21025	21030	21035
Ala Lys Asn Glu Lys	Gly Leu Ser Asp Pro	Val Thr Ile Gly Pro
21040	21045	21050
Ile Thr Val Lys Glu	Leu Ile Ile Thr Pro	Glu Val Asp Leu Ser
21055	21060	21065

Asp Ile Pro Gly Ala	Gln Val Thr Val Arg	Ile Gly His Asn Val
21070	21075	21080
His Leu Glu Leu Pro	Tyr Lys Gly Lys Pro	Lys Pro Ser Ile Ser
21085	21090	21095
Trp Leu Lys Asp Gly	Leu Pro Leu Lys Glu	Ser Glu Phe Val Arg
21100	21105	21110
Phe Ser Lys Thr Glu	Asn Lys Ile Thr Leu	Ser Ile Lys Asn Ala
21115	21120	21125
Lys Lys Glu His Gly	Gly Lys Tyr Thr Val	Ile Leu Asp Asn Ala
21130	21135	21140
Val Cys Arg Ile Ala	Val Pro Ile Thr Val	Ile Thr Leu Gly Pro
21145	21150	21155
Pro Ser Lys Pro Lys	Gly Pro Ile Arg Phe	Asp Glu Ile Lys Ala
21160	21165	21170
Asp Ser Val Ile Leu	Ser Trp Asp Val Pro	Glu Asp Asn Gly Gly
21175	21180	21185
Gly Glu Ile Thr Cys	Tyr Ser Ile Glu Lys	Arg Glu Thr Ser Gln
21190	21195	21200
Thr Asn Trp Lys Met	Val Cys Ser Ser Val	Ala Arg Thr Thr Phe
21205	21210	21215
Lys Val Pro Asn Leu	Val Lys Asp Ala Glu	Tyr Gln Phe Arg Val
21220	21225	21230
Arg Ala Glu Asn Arg	Tyr Gly Val Ser Gln	Pro Leu Val Ser Ser
21235	21240	21245
Ile Ile Val Ala Lys	His Gln Phe Arg Ile	Pro Gly Pro Pro Gly
21250	21255	21260
Lys Pro Val Ile Tyr	Asn Val Thr Ser Asp	Gly Met Ser Leu Thr
21265	21270	21275
Trp Asp Ala Pro Val	Tyr Asp Gly Gly Ser	Glu Val Thr Gly Phe
21280	21285	21290
His Val Glu Lys Lys	Glu Arg Asn Ser Ile	Leu Trp Gln Lys Val
21295	21300	21305
Asn Thr Ser Pro Ile	Ser Gly Arg Glu Tyr	Arg Ala Thr Gly Leu
21310	21315	21320
Val Glu Gly Leu Asp	Tyr Gln Phe Arg Val	Tyr Ala Glu Asn Ser
21325	21330	21335
Ala Gly Leu Ser Ser	Pro Ser Asp Pro Ser	Lys Phe Thr Leu Ala
21340	21345	21350
Val Ser Pro Val Asp	Pro Pro Gly Thr Pro	Asp Tyr Ile Asp Val
21355	21360	21365
Thr Arg Glu Thr Ile	Thr Leu Lys Trp Asn	Pro Pro Leu Arg Asp
21370	21375	21380
Gly Gly Ser Lys Ile	Val Gly Tyr Ser Ile	Glu Lys Arg Gln Gly
21385	21390	21395
Asn Glu Arg Trp Val	Arg Cys Asn Phe Thr	Asp Val Ser Glu Cys
21400	21405	21410
Gln Tyr Thr Val Thr	Gly Leu Ser Pro Gly	Asp Arg Tyr Glu Phe
21415	21420	21425
Arg Ile Ile Ala Arg	Asn Ala Val Gly Thr	Ile Ser Pro Pro Ser
21430	21435	21440
Gln Ser Ser Gly Ile	Ile Met Thr Arg Asp	Glu Asn Val Pro Pro
21445	21450	21455
Ile Val Glu Phe Gly	Pro Glu Tyr Phe Asp	Gly Leu Ile Ile Lys
21460	21465	21470
Ser Gly Glu Ser Leu	Arg Ile Lys Ala Leu	Val Gln Gly Arg Pro
21475	21480	21485
Val Pro Arg Val Thr	Trp Phe Lys Asp Gly	Val Glu Ile Glu Lys
21490	21495	21500
Arg Met Asn Met Glu	Ile Thr Asn Val Leu	Gly Ser Thr Ser Leu

21505	Phe Val Arg Asp Ala	21510	Thr Arg Asp His Arg	21515	Gly Val Tyr Thr Val
21520	Glu Ala Lys Asn Ala	21525	Ser Gly Ser Ala Lys	21530	Ala Glu Ile Lys Val
21535	Lys Val Gln Asp Thr	21540	Pro Gly Lys Val Val	21545	Gly Pro Ile Arg Phe
21550	Thr Asn Ile Thr Gly	21555	Glu Lys Met Thr Leu	21560	Trp Trp Asp Ala Pro
21565	Leu Asn Asp Gly Cys	21570	Ala Pro Ile Thr His	21575	Tyr Ile Ile Glu Lys
21580	Arg Glu Thr Ser Arg	21585	Leu Ala Trp Ala Leu	21590	Ile Glu Asp Lys Cys
21595	Glu Ala Gln Ser Tyr	21600	Thr Ala Ile Lys Leu	21605	Ile Asn Gly Asn Glu
21610	Tyr Gln Phe Arg Val	21615	Ser Ala Val Asn Lys	21620	Phe Gly Val Gly Arg
21625	Pro Leu Asp Ser Asp	21630	Pro Val Val Ala Gln	21635	Ile Gln Tyr Thr Val
21640	Pro Asp Ala Pro Gly	21645	Ile Pro Glu Pro Ser	21650	Asn Ile Thr Gly Asn
21655	Ser Ile Thr Leu Thr	21660	Trp Ala Arg Pro Glu	21665	Ser Asp Gly Gly Ser
21670	Glu Ile Gln Gln Tyr	21675	Ile Leu Glu Arg Arg	21680	Glu Lys Lys Ser Thr
21685	Arg Trp Val Lys Val	21690	Ile Ser Lys Arg Pro	21695	Ile Ser Glu Thr Arg
21700	Phe Lys Val Thr Gly	21705	Leu Thr Glu Gly Asn	21710	Glu Tyr Glu Phe His
21715	Val Met Ala Glu Asn	21720	Ala Ala Gly Val Gly	21725	Pro Ala Ser Gly Ile
21730	Ser Arg Leu Ile Lys	21735	Cys Arg Glu Pro Val	21740	Asn Pro Pro Gly Pro
21745	Pro Thr Val Val Lys	21750	Val Thr Asp Thr Ser	21755	Lys Thr Thr Val Ser
21760	Leu Glu Trp Ser Lys	21765	Pro Val Phe Asp Gly	21770	Gly Met Glu Ile Ile
21775	Gly Tyr Ile Ile Glu	21780	Met Cys Lys Thr Asp	21785	Leu Gly Asp Trp His
21790	Lys Val Asn Ala Glu	21795	Ala Cys Val Lys Thr	21800	Arg Tyr Thr Val Thr
21805	Asp Leu Gln Ala Gly	21810	Glu Glu Tyr Lys Phe	21815	Arg Val Ser Ala Ile
21820	Asn Gly Ala Gly Lys	21825	Gly Asp Ser Cys Glu	21830	Val Thr Gly Thr Ile
21835	Lys Ala Val Asp Arg	21840	Leu Thr Ala Pro Glu	21845	Leu Asp Ile Asp Ala
21850	Asn Phe Lys Gln Thr	21855	His Val Val Arg Ala	21860	Gly Ala Ser Ile Arg
21865	Leu Phe Ile Ala Tyr	21870	Gln Gly Arg Pro Thr	21875	Pro Thr Ala Val Trp
21880	Ser Lys Pro Asp Ser	21885	Asn Leu Ser Leu Arg	21890	Ala Asp Ile His Thr
21895	Thr Asp Ser Phe Ser	21900	Thr Leu Thr Val Glu	21905	Asn Cys Asn Arg Asn
21910	Asp Ala Gly Lys Tyr	21915	Thr Leu Thr Val Glu	21920	Asn Asn Ser Gly Ser
21925	Lys Ser Ile Thr Phe	21930	Thr Val Lys Val Leu	21935	Asp Thr Pro Gly Pro
21940		21945		21950	

Pro	Gly	Pro	Ile	Thr	Phe	Lys	Asp	Val	Thr	Arg	Gly	Ser	Ala	Thr
21955					21960					21965				
Leu	Met	Trp	Asp	Ala	Pro	Leu	Leu	Asp	Gly	Gly	Ala	Arg	Ile	His
21970					21975					21980				
His	Tyr	Val	Val	Glu	Lys	Arg	Glu	Ala	Ser	Arg	Arg	Ser	Trp	Gln
21985					21990					21995				
Val	Ile	Ser	Glu	Lys	Cys	Thr	Arg	Gln	Ile	Phe	Lys	Val	Asn	Asp
22000					22005					22010				
Leu	Ala	Glu	Gly	Val	Pro	Tyr	Tyr	Phe	Arg	Val	Ser	Ala	Val	Asn
22015					22020					22025				
Glu	Tyr	Gly	Val	Gly	Glu	Pro	Tyr	Glu	Met	Pro	Glu	Pro	Ile	Val
22030					22035					22040				
Ala	Thr	Glu	Gln	Pro	Ala	Pro	Pro	Arg	Arg	Leu	Asp	Val	Val	Asp
22045					22050					22055				
Thr	Ser	Lys	Ser	Ser	Ala	Val	Leu	Ala	Trp	Leu	Lys	Pro	Asp	His
22060					22065					22070				
Asp	Gly	Gly	Ser	Arg	Ile	Thr	Gly	Tyr	Leu	Leu	Glu	Met	Arg	Gln
22075					22080					22085				
Lys	Gly	Ser	Asp	Leu	Trp	Val	Glu	Ala	Gly	His	Thr	Lys	Gln	Leu
22090					22095					22100				
Thr	Phe	Thr	Val	Glu	Arg	Leu	Val	Glu	Lys	Thr	Glu	Tyr	Glu	Phe
22105					22110					22115				
Arg	Val	Lys	Ala	Lys	Asn	Asp	Ala	Gly	Tyr	Ser	Glu	Pro	Arg	Glu
22120					22125					22130				
Ala	Phe	Ser	Ser	Val	Ile	Ile	Lys	Glu	Pro	Gln	Ile	Glu	Pro	Thr
22135					22140					22145				
Ala	Asp	Leu	Thr	Gly	Ile	Thr	Asn	Gln	Leu	Ile	Thr	Cys	Lys	Ala
22150					22155					22160				
Gly	Ser	Pro	Phe	Thr	Ile	Asp	Val	Pro	Ile	Ser	Gly	Arg	Pro	Ala
22165					22170					22175				
Pro	Lys	Val	Thr	Trp	Lys	Leu	Glu	Glu	Met	Arg	Leu	Lys	Glu	Thr
22180					22185					22190				
Asp	Arg	Val	Ser	Ile	Thr	Thr	Thr	Lys	Asp	Arg	Thr	Thr	Leu	Thr
22195					22200					22205				
Val	Lys	Asp	Ser	Met	Arg	Gly	Asp	Ser	Gly	Arg	Tyr	Phe	Leu	Thr
22210					22215					22220				
Leu	Glu	Asn	Thr	Ala	Gly	Val	Lys	Thr	Phe	Ser	Val	Thr	Val	Val
22225					22230					22235				
Val	Ile	Gly	Arg	Pro	Gly	Pro	Val	Thr	Gly	Pro	Ile	Glu	Val	Ser
22240					22245					22250				
Ser	Val	Ser	Ala	Glu	Ser	Cys	Val	Leu	Ser	Trp	Gly	Glu	Pro	Lys
22255					22260					22265				
Asp	Gly	Gly	Gly	Thr	Glu	Ile	Thr	Asn	Tyr	Ile	Val	Glu	Lys	Arg
22270					22275					22280				
Glu	Ser	Gly	Thr	Thr	Ala	Trp	Gln	Leu	Val	Asn	Ser	Ser	Val	Lys
22285					22290					22295				
Arg	Thr	Gln	Ile	Lys	Val	Thr	His	Leu	Thr	Lys	Tyr	Met	Glu	Tyr
22300					22305					22310				
Ser	Phe	Arg	Val	Ser	Ser	Glu	Asn	Arg	Phe	Gly	Val	Ser	Lys	Pro
22315					22320					22325				
Leu	Glu	Ser	Ala	Pro	Ile	Ile	Ala	Glu	His	Pro	Phe	Val	Pro	Pro
22330					22335					22340				
Ser	Ala	Pro	Thr	Arg	Pro	Glu	Val	Tyr	His	Val	Ser	Ala	Asn	Ala
22345					22350					22355				
Met	Ser	Ile	Arg	Trp	Glu	Glu	Pro	Tyr	His	Asp	Gly	Gly	Ser	Lys
22360					22365					22370				
Ile	Ile	Gly	Tyr	Trp	Val	Glu	Lys	Lys	Glu	Arg	Asn	Thr	Ile	Leu
22375					22380					22385				
Trp	Val	Lys	Glu	Asn	Lys	Val	Pro	Cys	Leu	Glu	Cys	Asn	Tyr	Lys

22390	Val Thr Gly Leu Val	22395	Glu Gly Leu Glu Tyr	22400	Gln Phe Arg Thr Tyr
22405	Ala Leu Asn Ala Ala	22410	Gly Val Ser Lys Ala	22415	Ser Glu Ala Ser Arg
22420	Pro Ile Met Ala Gln	22425	Asn Pro Val Asp Ala	22430	Pro Gly Arg Pro Glu
22435	Val Thr Asp Val Thr	22440	Arg Ser Thr Val Ser	22445	Leu Ile Trp Ser Ala
22450	Pro Ala Tyr Asp Gly	22455	Gly Ser Lys Val Val	22460	Gly Tyr Ile Ile Glu
22465	Arg Lys Pro Val Ser	22470	Glu Val Gly Asp Gly	22475	Arg Trp Leu Lys Cys
22480	Asn Tyr Thr Ile Val	22485	Ser Asp Asn Phe Phe	22490	Thr Val Thr Ala Leu
22495	Ser Glu Gly Asp Thr	22500	Tyr Glu Phe Arg Val	22505	Leu Ala Lys Asn Ala
22510	Ala Gly Val Ile Ser	22515	Lys Gly Ser Glu Ser	22520	Thr Gly Pro Val Thr
22525	Cys Arg Asp Glu Tyr	22530	Ala Pro Pro Lys Ala	22535	Glu Leu Asp Ala Arg
22540	Leu His Gly Asp Leu	22545	Val Thr Ile Arg Ala	22550	Gly Ser Asp Leu Val
22555	Leu Asp Ala Ala Val	22560	Gly Gly Lys Pro Glu	22565	Pro Lys Ile Ile Trp
22570	Thr Lys Gly Asp Lys	22575	Glu Leu Asp Leu Cys	22580	Glu Lys Val Ser Leu
22585	Gln Tyr Thr Gly Lys	22590	Arg Ala Thr Ala Val	22595	Ile Lys Phe Cys Asp
22600	Arg Ser Asp Ser Gly	22605	Lys Tyr Thr Leu Thr	22610	Val Lys Asn Ala Ser
22615	Gly Thr Lys Ala Val	22620	Ser Val Met Val Lys	22625	Val Leu Asp Ser Pro
22630	Gly Pro Cys Gly Lys	22635	Leu Thr Val Ser Arg	22640	Val Thr Gln Glu Lys
22645	Cys Thr Leu Ala Trp	22650	Ser Leu Pro Gln Glu	22655	Asp Gly Gly Ala Glu
22660	Ile Thr His Tyr Ile	22665	Val Glu Arg Arg Glu	22670	Thr Ser Arg Leu Asn
22675	Trp Val Ile Val Glu	22680	Gly Glu Cys Pro Thr	22685	Leu Ser Tyr Val Val
22690	Thr Arg Leu Ile Lys	22695	Asn Asn Glu Tyr Ile	22700	Phe Arg Val Arg Ala
22705	Val Asn Lys Tyr Gly	22710	Pro Gly Val Pro Val	22715	Glu Ser Glu Pro Ile
22720	Val Ala Arg Asn Ser	22725	Phe Thr Ile Pro Ser	22730	Pro Pro Gly Ile Pro
22735	Glu Glu Val Gly Thr	22740	Gly Lys Glu His Ile	22745	Ile Ile Gln Trp Thr
22750	Lys Pro Glu Ser Asp	22755	Gly Gly Asn Glu Ile	22760	Ser Asn Tyr Leu Val
22765	Asp Lys Arg Glu Lys	22770	Glu Ser Leu Arg Trp	22775	Thr Arg Val Asn Lys
22780	Asp Tyr Val Val Tyr	22785	Asp Thr Arg Leu Lys	22790	Val Thr Ser Leu Met
22795	Glu Gly Cys Asp Tyr	22800	Gln Phe Arg Val Thr	22805	Ala Val Asn Ala Ala
22810	Gly Asn Ser Glu Pro	22815	Ser Glu Arg Ser Asn	22820	Phe Ile Ser Cys Arg
22825		22830		22835	

Glu Pro Ser Tyr Thr	Pro Gly Pro Pro Ser	Ala Pro Arg Val Val
22840	22845	22850
Asp Thr Thr Lys His	Ser Ile Ser Leu Ala	Trp Thr Lys Pro Met
22855	22860	22865
Tyr Asp Gly Gly Thr	Asp Ile Val Gly Tyr	Val Leu Glu Met Gln
22870	22875	22880
Glu Lys Asp Thr Asp	Gln Trp Tyr Arg Val	His Thr Asn Ala Thr
22885	22890	22895
Ile Arg Asn Thr Glu	Phe Thr Val Pro Asp	Leu Lys Met Gly Gln
22900	22905	22910
Lys Tyr Ser Phe Arg	Val Ala Ala Val Asn	Val Lys Gly Met Ser
22915	22920	22925
Glu Tyr Ser Glu Ser	Ile Ala Glu Ile Glu	Pro Val Glu Arg Ile
22930	22935	22940
Glu Ile Pro Asp Leu	Glu Leu Ala Asp Asp	Leu Lys Lys Thr Val
22945	22950	22955
Thr Ile Arg Ala Gly	Ala Ser Leu Arg Leu	Met Val Ser Val Ser
22960	22965	22970
Gly Arg Pro Pro Pro	Val Ile Thr Trp Ser	Lys Gln Gly Ile Asp
22975	22980	22985
Leu Ala Ser Arg Ala	Ile Ile Asp Thr Thr	Glu Ser Tyr Ser Leu
22990	22995	23000
Leu Ile Val Asp Lys	Val Asn Arg Tyr Asp	Ala Gly Lys Tyr Thr
23005	23010	23015
Ile Glu Ala Glu Asn	Gln Ser Gly Lys Lys	Ser Ala Thr Val Leu
23020	23025	23030
Val Lys Val Tyr Asp	Thr Pro Gly Pro Cys	Pro Ser Val Lys Val
23035	23040	23045
Lys Glu Val Ser Arg	Asp Ser Val Thr Ile	Thr Trp Glu Ile Pro
23050	23055	23060
Thr Ile Asp Gly Gly	Ala Pro Ile Asn Asn	Tyr Ile Val Glu Lys
23065	23070	23075
Arg Glu Ala Ala Met	Arg Ala Phe Lys Thr	Val Thr Thr Lys Cys
23080	23085	23090
Ser Lys Thr Leu Tyr	Arg Ile Ser Gly Leu	Val Glu Gly Thr Met
23095	23100	23105
His Tyr Phe Arg Val	Leu Pro Glu Asn Ile	Tyr Gly Ile Gly Glu
23110	23115	23120
Pro Cys Glu Thr Ser	Asp Ala Val Leu Val	Ser Glu Val Pro Leu
23125	23130	23135
Val Pro Ala Lys Leu	Glu Val Val Asp Val	Thr Lys Ser Thr Val
23140	23145	23150
Thr Leu Ala Trp Glu	Lys Pro Leu Tyr Asp	Gly Gly Ser Arg Leu
23155	23160	23165
Thr Gly Tyr Val Leu	Glu Ala Cys Lys Ala	Gly Thr Glu Arg Trp
23170	23175	23180
Met Lys Val Val Thr	Leu Lys Pro Thr Val	Leu Glu His Thr Val
23185	23190	23195
Thr Ser Leu Asn Glu	Gly Glu Gln Tyr Leu	Phe Arg Ile Arg Ala
23200	23205	23210
Gln Asn Glu Lys Gly	Val Ser Glu Pro Arg	Glu Thr Val Thr Ala
23215	23220	23225
Val Thr Val Gln Asp	Leu Arg Val Leu Pro	Thr Ile Asp Leu Ser
23230	23235	23240
Thr Met Pro Gln Lys	Thr Ile His Val Pro	Ala Gly Arg Pro Val
23245	23250	23255
Glu Leu Val Ile Pro	Ile Ala Gly Arg Pro	Pro Pro Ala Ala Ser
23260	23265	23270
Trp Phe Phe Ala Gly	Ser Lys Leu Arg Glu	Ser Glu Arg Val Thr

23275	Val Glu Thr His Thr	23280	Lys Val Ala Lys Leu	23285	Thr Ile Arg Glu Thr
23290	Thr Ile Arg Asp Thr	23295	Gly Glu Tyr Thr Leu	23300	Glu Leu Lys Asn Val
23305	Thr Gly Thr Thr Ser	23310	Glu Thr Ile Lys Val	23315	Ile Ile Leu Asp Lys
23320	Pro Gly Pro Pro Thr	23325	Gly Pro Ile Lys Ile	23330	Asp Glu Ile Asp Ala
23335	Thr Ser Ile Thr Ile	23340	Ser Trp Glu Pro Pro	23345	Glu Leu Asp Gly Gly
23350	Ala Pro Leu Ser Gly	23355	Tyr Val Val Glu Gln	23360	Arg Asp Ala His Arg
23365	Pro Gly Trp Leu Pro	23370	Val Ser Glu Ser Val	23375	Thr Arg Ser Thr Phe
23380	Lys Phe Thr Arg Leu	23385	Thr Glu Gly Asn Glu	23390	Tyr Val Phe Arg Val
23395	Ala Ala Thr Asn Arg	23400	Phe Gly Ile Gly Ser	23405	Tyr Leu Gln Ser Glu
23410	Val Ile Glu Cys Arg	23415	Ser Ser Ile Arg Ile	23420	Pro Gly Pro Pro Glu
23425	Thr Leu Gln Ile Phe	23430	Asp Val Ser Arg Asp	23435	Gly Met Thr Leu Thr
23440	Trp Tyr Pro Pro Glu	23445	Asp Asp Gly Gly Ser	23450	Gln Val Thr Gly Tyr
23455	Ile Val Glu Arg Lys	23460	Glu Val Arg Ala Asp	23465	Arg Trp Val Arg Val
23470	Asn Lys Val Pro Val	23475	Thr Met Thr Arg Tyr	23480	Arg Ser Thr Gly Leu
23485	Thr Glu Gly Leu Glu	23490	Tyr Glu His Arg Val	23495	Thr Ala Ile Asn Ala
23500	Arg Gly Ser Gly Lys	23505	Pro Ser Arg Pro Ser	23510	Lys Pro Ile Val Ala
23515	Met Asp Pro Ile Ala	23520	Pro Pro Gly Lys Pro	23525	Gln Asn Pro Arg Val
23530	Thr Asp Thr Thr Arg	23535	Thr Ser Val Ser Leu	23540	Ala Trp Ser Val Pro
23545	Glu Asp Glu Gly Gly	23550	Ser Lys Val Thr Gly	23555	Tyr Leu Ile Glu Met
23560	Gln Lys Val Asp Gln	23565	His Glu Trp Thr Lys	23570	Cys Asn Thr Thr Pro
23575	Thr Lys Ile Arg Glu	23580	Tyr Thr Leu Thr His	23585	Leu Pro Gln Gly Ala
23590	Glu Tyr Arg Phe Arg	23595	Val Leu Ala Cys Asn	23600	Ala Gly Gly Pro Gly
23605	Glu Pro Ala Glu Val	23610	Pro Gly Thr Val Lys	23615	Val Thr Glu Met Leu
23620	Glu Tyr Pro Asp Tyr	23625	Glu Leu Asp Glu Arg	23630	Tyr Gln Glu Gly Ile
23635	Phe Val Arg Gln Gly	23640	Gly Val Ile Arg Leu	23645	Thr Ile Pro Ile Lys
23650	Gly Lys Pro Phe Pro	23655	Ile Cys Lys Trp Thr	23660	Lys Glu Gly Gln Asp
23665	Ile Ser Lys Arg Ala	23670	Met Ile Ala Thr Ser	23675	Glu Thr His Thr Glu
23680	Leu Val Ile Lys Glu	23685	Ala Asp Arg Gly Asp	23690	Ser Gly Thr Tyr Asp
23695	Leu Val Leu Glu Asn	23700	Lys Cys Gly Lys Lys	23705	Ala Val Tyr Ile Lys
23710		23715		23720	

Val Arg Val Ile Gly Ser Pro Asn Ser Pro Glu Gly Pro Leu Glu	23725	23730	23735
Tyr Asp Asp Ile Gln Val Arg Ser Val Arg Val Ser Trp Arg Pro	23740	23745	23750
Pro Ala Asp Asp Gly Gly Ala Asp Ile Leu Gly Tyr Ile Leu Glu	23755	23760	23765
Arg Arg Glu Val Pro Lys Ala Ala Trp Tyr Thr Ile Asp Ser Arg	23770	23775	23780
Val Arg Gly Thr Ser Leu Val Val Lys Gly Leu Lys Glu Asn Val	23785	23790	23795
Glu Tyr His Phe Arg Val Ser Ala Glu Asn Gln Phe Gly Ile Ser	23800	23805	23810
Lys Pro Leu Lys Ser Glu Glu Pro Val Thr Pro Lys Thr Pro Leu	23815	23820	23825
Asn Pro Pro Glu Pro Pro Ser Asn Pro Pro Glu Val Leu Asp Val	23830	23835	23840
Thr Lys Ser Ser Val Ser Leu Ser Trp Ser Arg Pro Lys Asp Asp	23845	23850	23855
Gly Gly Ser Arg Val Thr Gly Tyr Tyr Ile Glu Arg Lys Glu Thr	23860	23865	23870
Ser Thr Asp Lys Trp Val Arg His Asn Lys Thr Gln Ile Thr Thr	23875	23880	23885
Thr Met Tyr Thr Val Thr Gly Leu Val Pro Asp Ala Glu Tyr Gln	23890	23895	23900
Phe Arg Ile Ile Ala Gln Asn Asp Val Gly Leu Ser Glu Thr Ser	23905	23910	23915
Pro Ala Ser Glu Pro Val Val Cys Lys Asp Pro Phe Asp Lys Pro	23920	23925	23930
Ser Gln Pro Gly Glu Leu Glu Ile Leu Ser Ile Ser Lys Asp Ser	23935	23940	23945
Val Thr Leu Gln Trp Glu Lys Pro Glu Cys Asp Gly Gly Lys Glu	23950	23955	23960
Ile Leu Gly Tyr Trp Val Glu Tyr Arg Gln Ser Gly Asp Ser Ala	23965	23970	23975
Trp Lys Lys Ser Asn Lys Glu Arg Ile Lys Asp Lys Gln Phe Thr	23980	23985	23990
Ile Gly Gly Leu Leu Glu Ala Thr Glu Tyr Glu Phe Arg Val Phe	23995	24000	24005
Ala Glu Asn Glu Thr Gly Leu Ser Arg Pro Arg Arg Thr Ala Met	24010	24015	24020
Ser Ile Lys Thr Lys Leu Thr Ser Gly Glu Ala Pro Gly Ile Arg	24025	24030	24035
Lys Glu Met Lys Asp Val Thr Thr Lys Leu Gly Glu Ala Ala Gln	24040	24045	24050
Leu Ser Cys Gln Ile Val Gly Arg Pro Leu Pro Asp Ile Lys Trp	24055	24060	24065
Tyr Arg Phe Gly Lys Glu Leu Ile Gln Ser Arg Lys Tyr Lys Met	24070	24075	24080
Ser Ser Asp Gly Arg Thr His Thr Leu Thr Val Met Thr Glu Glu	24085	24090	24095
Gln Glu Asp Glu Gly Val Tyr Thr Cys Ile Ala Thr Asn Glu Val	24100	24105	24110
Gly Glu Val Glu Thr Ser Ser Lys Leu Leu Leu Gln Ala Thr Pro	24115	24120	24125
Gln Phe His Pro Gly Tyr Pro Leu Lys Glu Lys Tyr Tyr Gly Ala	24130	24135	24140
Val Gly Ser Thr Leu Arg Leu His Val Met Tyr Ile Gly Arg Pro	24145	24150	24155
Val Pro Ala Met Thr Trp Phe His Gly Gln Lys Leu Leu Gln Asn			

24160	24165	24170
Ser Glu Asn Ile Thr	Ile Glu Asn Thr Glu	His Tyr Thr His Leu
24175	24180	24185
Val Met Lys Asn Val	Gln Arg Lys Thr His	Ala Gly Lys Tyr Lys
24190	24195	24200
Val Gln Leu Ser Asn	Val Phe Gly Thr Val	Asp Ala Ile Leu Asp
24205	24210	24215
Val Glu Ile Gln Asp	Lys Pro Asp Lys Pro	Thr Gly Pro Ile Val
24220	24225	24230
Ile Glu Ala Leu Leu	Lys Asn Ser Ala Val	Ile Ser Trp Lys Pro
24235	24240	24245
Pro Ala Asp Asp Gly	Gly Ser Trp Ile Thr	Asn Tyr Val Val Glu
24250	24255	24260
Lys Cys Glu Ala Lys	Glu Gly Ala Glu Trp	Gln Leu Val Ser Ser
24265	24270	24275
Ala Ile Ser Val Thr	Thr Cys Arg Ile Val	Asn Leu Thr Glu Asn
24280	24285	24290
Ala Gly Tyr Tyr Phe	Arg Val Ser Ala Gln	Asn Thr Phe Gly Ile
24295	24300	24305
Ser Asp Pro Leu Glu	Val Ser Ser Val Val	Ile Ile Lys Ser Pro
24310	24315	24320
Phe Glu Lys Pro Gly	Ala Pro Gly Lys Pro	Thr Ile Thr Ala Val
24325	24330	24335
Thr Lys Asp Ser Cys	Val Val Ala Trp Lys	Pro Pro Ala Ser Asp
24340	24345	24350
Gly Gly Ala Lys Ile	Arg Asn Tyr Tyr Leu	Glu Lys Arg Glu Lys
24355	24360	24365
Lys Gln Asn Lys Trp	Ile Ser Val Thr Thr	Glu Glu Ile Arg Glu
24370	24375	24380
Thr Val Phe Ser Val	Lys Asn Leu Ile Glu	Gly Leu Glu Tyr Glu
24385	24390	24395
Phe Arg Val Lys Cys	Glu Asn Leu Gly Gly	Glu Ser Glu Trp Ser
24400	24405	24410
Glu Ile Ser Glu Pro	Ile Thr Pro Lys Ser	Asp Val Pro Ile Gln
24415	24420	24425
Ala Pro His Phe Lys	Glu Glu Leu Arg Asn	Leu Asn Val Arg Tyr
24430	24435	24440
Gln Ser Asn Ala Thr	Leu Val Cys Lys Val	Thr Gly His Pro Lys
24445	24450	24455
Pro Ile Val Lys Trp	Tyr Arg Gln Gly Lys	Glu Ile Ile Ala Asp
24460	24465	24470
Gly Leu Lys Tyr Arg	Ile Gln Glu Phe Lys	Gly Gly Tyr His Gln
24475	24480	24485
Leu Ile Ile Ala Ser	Val Thr Asp Asp Asp	Ala Thr Val Tyr Gln
24490	24495	24500
Val Arg Ala Thr Asn	Gln Gly Gly Ser Val	Ser Gly Thr Ala Ser
24505	24510	24515
Leu Glu Val Glu Val	Pro Ala Lys Ile His	Leu Pro Lys Thr Leu
24520	24525	24530
Glu Gly Met Gly Ala	Val His Ala Leu Arg	Gly Glu Val Val Ser
24535	24540	24545
Ile Lys Ile Pro Phe	Ser Gly Lys Pro Asp	Pro Val Ile Thr Trp
24550	24555	24560
Gln Lys Gly Gln Asp	Leu Ile Asp Asn Asn	Gly His Tyr Gln Val
24565	24570	24575
Ile Val Thr Arg Ser	Phe Thr Ser Leu Val	Phe Pro Asn Gly Val
24580	24585	24590
Glu Arg Lys Asp Ala	Gly Phe Tyr Val Val	Cys Ala Lys Asn Arg
24595	24600	24605

Phe Gly Ile Asp Gln	Lys Thr Val Glu Leu	Asp Val Ala Asp Val
24610	24615	24620
Pro Asp Pro Pro Arg	Gly Val Lys Val Ser	Asp Ala Ser Arg Asp
24625	24630	24635
Ser Val Asn Leu Thr	Trp Thr Glu Pro Ala	Ser Asp Gly Gly Ser
24640	24645	24650
Lys Ile Thr Asn Tyr	Ile Val Glu Lys Cys	Ala Thr Thr Ala Glu
24655	24660	24665
Arg Trp Leu Arg Val	Gly Gln Ala Arg Glu	Thr Arg Tyr Thr Val
24670	24675	24680
Ile Asn Leu Phe Gly	Lys Thr Ser Tyr Gln	Phe Arg Val Ile Ala
24685	24690	24695
Glu Asn Lys Phe Gly	Leu Ser Lys Pro Ser	Glu Pro Ser Glu Pro
24700	24705	24710
Thr Ile Thr Lys Glu	Asp Lys Thr Arg Ala	Met Asn Tyr Asp Glu
24715	24720	24725
Glu Val Asp Glu Thr	Arg Glu Val Ser Met	Thr Lys Ala Ser His
24730	24735	24740
Ser Ser Thr Lys Glu	Leu Tyr Glu Lys Tyr	Met Ile Ala Glu Asp
24745	24750	24755
Leu Gly Arg Gly Glu	Phe Gly Ile Val His	Arg Cys Val Glu Thr
24760	24765	24770
Ser Ser Lys Lys Thr	Tyr Met Ala Lys Phe	Val Lys Val Lys Gly
24775	24780	24785
Thr Asp Gln Val Leu	Val Lys Lys Glu Ile	Ser Ile Leu Asn Ile
24790	24795	24800
Ala Arg His Arg Asn	Ile Leu His Leu His	Glu Ser Phe Glu Ser
24805	24810	24815
Met Glu Glu Leu Val	Met Ile Phe Glu Phe	Ile Ser Gly Leu Asp
24820	24825	24830
Ile Phe Glu Arg Ile	Asn Thr Ser Ala Phe	Glu Leu Asn Glu Arg
24835	24840	24845
Glu Ile Val Ser Tyr	Val His Gln Val Cys	Glu Ala Leu Gln Phe
24850	24855	24860
Leu His Ser His Asn	Ile Gly His Phe Asp	Ile Arg Pro Glu Asn
24865	24870	24875
Ile Ile Tyr Gln Thr	Arg Arg Ser Ser Thr	Ile Lys Ile Ile Glu
24880	24885	24890
Phe Gly Gln Ala Arg	Gln Leu Lys Pro Gly	Asp Asn Phe Arg Leu
24895	24900	24905
Leu Phe Thr Ala Pro	Glu Tyr Tyr Ala Pro	Glu Val His Gln His
24910	24915	24920
Asp Val Val Ser Thr	Ala Thr Asp Met Trp	Ser Leu Gly Thr Leu
24925	24930	24935
Val Tyr Val Leu Leu	Ser Gly Ile Asn Pro	Phe Leu Ala Glu Thr
24940	24945	24950
Asn Gln Gln Ile Ile	Glu Asn Ile Met Asn	Ala Glu Tyr Thr Phe
24955	24960	24965
Asp Glu Glu Ala Phe	Lys Glu Ile Ser Ile	Glu Ala Met Asp Phe
24970	24975	24980
Val Asp Arg Leu Leu	Val Lys Glu Arg Lys	Ser Arg Met Thr Ala
24985	24990	24995
Ser Glu Ala Leu Gln	His Pro Trp Leu Lys	Gln Lys Ile Glu Arg
25000	25005	25010
Val Ser Thr Lys Val	Ile Arg Thr Leu Lys	His Arg Arg Tyr Tyr
25015	25020	25025
His Thr Leu Ile Lys	Lys Asp Leu Asn Met	Val Val Ser Ala Ala
25030	25035	25040
Arg Ile Ser Cys Gly	Gly Ala Ile Arg Ser	Gln Lys Gly Val Ser

25045	25050	25055
Val Ala Lys Val Lys	Val Ala Ser Ile Glu	Ile Gly Pro Val Ser
25060	25065	25070
Gly Gln Ile Met His	Ala Val Gly Glu Glu	Gly Gly His Val Lys
25075	25080	25085
Tyr Val Cys Lys Ile	Glu Asn Tyr Asp Gln	Ser Thr Gln Val Thr
25090	25095	25100
Trp Tyr Phe Gly Val	Arg Gln Leu Glu Asn	Ser Glu Lys Tyr Glu
25105	25110	25115
Ile Thr Tyr Glu Asp	Gly Val Ala Ile Leu	Tyr Val Lys Asp Ile
25120	25125	25130
Thr Lys Leu Asp Asp	Gly Thr Tyr Arg Cys	Lys Val Val Asn Asp
25135	25140	25145
Tyr Gly Glu Asp Ser	Ser Tyr Ala Glu Leu	Phe Val Lys Gly Val
25150	25155	25160
Arg Glu Val Tyr Asp	Tyr Tyr Cys Arg Arg	Thr Met Lys Lys Ile
25165	25170	25175
Lys Arg Arg Thr Asp	Thr Met Arg Leu Leu	Glu Arg Pro Pro Glu
25180	25185	25190
Phe Thr Leu Pro Leu	Tyr Asn Lys Thr Ala	Tyr Val Gly Glu Asn
25195	25200	25205
Val Arg Phe Gly Val	Thr Ile Thr Val His	Pro Glu Pro His Val
25210	25215	25220
Thr Trp Tyr Lys Ser	Gly Gln Lys Ile Lys	Pro Gly Asp Asn Asp
25225	25230	25235
Lys Lys Tyr Thr Phe	Glu Ser Asp Lys Gly	Leu Tyr Gln Leu Thr
25240	25245	25250
Ile Asn Ser Val Thr	Thr Asp Asp Asp Ala	Glu Tyr Thr Val Val
25255	25260	25265
Ala Arg Asn Lys Tyr	Gly Glu Asp Ser Cys	Lys Ala Lys Leu Thr
25270	25275	25280
Val Thr Leu His Pro	Pro Pro Thr Asp Ser	Thr Leu Arg Pro Met
25285	25290	25295
Phe Lys Arg Leu Leu	Ala Asn Ala Glu Cys	Gln Glu Gly Gln Ser
25300	25305	25310
Val Cys Phe Glu Ile	Arg Val Ser Gly Ile	Pro Pro Pro Thr Leu
25315	25320	25325
Lys Trp Glu Lys Asp	Gly Gln Pro Leu Ser	Leu Gly Pro Asn Ile
25330	25335	25340
Glu Ile Ile His Glu	Gly Leu Asp Tyr Tyr	Ala Leu His Ile Arg
25345	25350	25355
Asp Thr Leu Pro Glu	Asp Thr Gly Tyr Tyr	Arg Val Thr Ala Thr
25360	25365	25370
Asn Thr Ala Gly Ser	Thr Ser Cys Gln Ala	His Leu Gln Val Glu
25375	25380	25385
Arg Leu Arg Tyr Lys	Lys Gln Glu Phe Lys	Ser Lys Glu Glu His
25390	25395	25400
Glu Arg His Val Gln	Lys Gln Ile Asp Lys	Thr Leu Arg Met Ala
25405	25410	25415
Glu Ile Leu Ser Gly	Thr Glu Ser Val Pro	Leu Thr Gln Val Ala
25420	25425	25430
Lys Glu Ala Leu Arg	Glu Ala Ala Val Leu	Tyr Lys Pro Ala Val
25435	25440	25445
Ser Thr Lys Thr Val	Lys Gly Glu Phe Arg	Leu Glu Ile Glu Glu
25450	25455	25460
Lys Lys Glu Glu Arg	Lys Leu Arg Met Pro	Tyr Asp Val Pro Glu
25465	25470	25475
Pro Arg Lys Tyr Lys	Gln Thr Thr Ile Glu	Glu Asp Gln Arg Ile
25480	25485	25490

Lys	Gln	Phe	Val	Pro	Met	Ser	Asp	Met	Lys	Trp	Tyr	Lys	Lys	Ile
25495					25500					25505				
Arg	Asp	Gln	Tyr	Glu	Met	Pro	Gly	Lys	Leu	Asp	Arg	Val	Val	Gln
25510					25515					25520				
Lys	Arg	Pro	Lys	Arg	Ile	Arg	Leu	Ser	Arg	Trp	Glu	Gln	Phe	Tyr
25525					25530					25535				
Val	Met	Pro	Leu	Pro	Arg	Ile	Thr	Asp	Gln	Tyr	Arg	Pro	Lys	Trp
25540					25545					25550				
Arg	Ile	Pro	Lys	Leu	Ser	Gln	Asp	Asp	Leu	Glu	Ile	Val	Arg	Pro
25555					25560					25565				
Ala	Arg	Arg	Arg	Thr	Pro	Ser	Pro	Asp	Tyr	Asp	Phe	Tyr	Tyr	Arg
25570					25575					25580				
Pro	Arg	Arg	Arg	Ser	Leu	Gly	Asp	Ile	Ser	Asp	Glu	Glu	Leu	Leu
25585					25590					25595				
Leu	Pro	Ile	Asp	Asp	Tyr	Leu	Ala	Met	Lys	Arg	Thr	Glu	Glu	Glu
25600					25605					25610				
Arg	Leu	Arg	Leu	Glu	Glu	Glu	Leu	Glu	Leu	Gly	Phe	Ser	Ala	Ser
25615					25620					25625				
Pro	Pro	Ser	Arg	Ser	Pro	Pro	His	Phe	Glu	Leu	Ser	Ser	Leu	Arg
25630					25635					25640				
Tyr	Ser	Ser	Pro	Gln	Ala	His	Val	Lys	Val	Glu	Glu	Thr	Arg	Lys
25645					25650					25655				
Asn	Phe	Arg	Tyr	Ser	Thr	Tyr	His	Ile	Pro	Thr	Lys	Ala	Glu	Ala
25660					25665					25670				
Ser	Thr	Ser	Tyr	Ala	Glu	Leu	Arg	Glu	Arg	His	Ala	Gln	Ala	Ala
25675					25680					25685				
Tyr	Arg	Gln	Pro	Lys	Gln	Arg	Gln	Arg	Ile	Met	Ala	Glu	Arg	Glu
25690					25695					25700				
Asp	Glu	Glu	Leu	Leu	Arg	Pro	Val	Thr	Thr	Thr	Gln	His	Leu	Ser
25705					25710					25715				
Glu	Tyr	Lys	Ser	Glu	Leu	Asp	Phe	Met	Ser	Lys	Glu	Glu	Lys	Ser
25720					25725					25730				
Arg	Lys	Lys	Ser	Arg	Arg	Gln	Arg	Glu	Val	Thr	Glu	Ile	Thr	Glu
25735					25740					25745				
Ile	Glu	Glu	Glu	Tyr	Glu	Ile	Ser	Lys	His	Ala	Gln	Arg	Glu	Ser
25750					25755					25760				
Ser	Ser	Ser	Ala	Ser	Arg	Leu	Leu	Arg	Arg	Arg	Arg	Ser	Leu	Ser
25765					25770					25775				
Pro	Thr	Tyr	Ile	Glu	Leu	Met	Arg	Pro	Val	Ser	Glu	Leu	Ile	Arg
25780					25785					25790				
Ser	Arg	Pro	Gln	Pro	Ala	Glu	Glu	Tyr	Glu	Asp	Asp	Thr	Glu	Arg
25795					25800					25805				
Arg	Ser	Pro	Thr	Pro	Glu	Arg	Thr	Arg	Pro	Arg	Ser	Pro	Ser	Pro
25810					25815					25820				
Val	Ser	Ser	Glu	Arg	Ser	Leu	Ser	Arg	Phe	Glu	Arg	Ser	Ala	Arg
25825					25830					25835				
Phe	Asp	Ile	Phe	Ser	Arg	Tyr	Glu	Ser	Met	Lys	Ala	Ala	Leu	Lys
25840					25845					25850				
Thr	Gln	Lys	Thr	Ser	Glu	Arg	Lys	Tyr	Glu	Val	Leu	Ser	Gln	Gln
25855					25860					25865				
Pro	Phe	Thr	Leu	Asp	His	Ala	Pro	Arg	Ile	Thr	Leu	Arg	Met	Arg
25870					25875					25880				
Ser	His	Arg	Val	Pro	Cys	Gly	Gln	Asn	Thr	Arg	Phe	Ile	Leu	Asn
25885					25890					25895				
Val	Gln	Ser	Lys	Pro	Thr	Ala	Glu	Val	Lys	Trp	Tyr	His	Asn	Gly
25900					25905					25910				
Val	Glu	Leu	Gln	Glu	Ser	Ser	Lys	Ile	His	Tyr	Thr	Asn	Thr	Ser
25915					25920					25925				
Gly	Val	Leu	Thr	Leu	Glu	Ile	Leu	Asp	Cys	His	Thr	Asp	Asp	Ser

25930	Gly Thr Tyr Arg Ala	25935	Val Cys Thr Asn Tyr	25940	Lys Gly Glu Ala Ser
25945	Asp Tyr Ala Thr Leu	25950	Asp Val Thr Gly Gly	25955	Asp Tyr Thr Thr Tyr
25960	Ala Ser Gln Arg Arg	25965	Asp Glu Glu Val Pro	25970	Arg Ser Val Phe Pro
25975	Glu Leu Thr Arg Thr	25980	Glu Ala Tyr Ala Val	25985	Pro Ser Phe Lys Lys
25990	Thr Ser Glu Met Glu	25995	Ala Ser Ser Ser Val	26000	Arg Glu Val Lys Ser
26005	Gln Met Thr Glu Thr	26010	Arg Glu Ser Leu Ser	26015	Ser Tyr Glu His Ser
26020	Ala Ser Ala Glu Met	26025	Lys Ser Ala Ala Leu	26030	Glu Glu Lys Ser Leu
26035	Glu Glu Lys Ser Thr	26040	Thr Arg Lys Ile Lys	26045	Thr Thr Leu Ala Ala
26050	Arg Ile Leu Thr Lys	26055	Pro Arg Ser Met Thr	26060	Val Tyr Glu Gly Glu
26065	Ser Ala Arg Phe Ser	26070	Cys Asp Thr Asp Gly	26075	Glu Pro Val Pro Thr
26080	Val Thr Trp Leu Arg	26085	Lys Gly Gln Val Leu	26090	Ser Thr Ser Ala Arg
26095	His Gln Val Thr Thr	26100	Thr Lys Tyr Lys Ser	26105	Thr Phe Glu Ile Ser
26110	Ser Val Gln Ala Ser	26115	Asp Glu Gly Asn Tyr	26120	Ser Val Val Val Glu
26125	Asn Ser Glu Gly Lys	26130	Gln Glu Ala Glu Phe	26135	Thr Leu Thr Ile Gln
26140	Lys Ala Arg Val Thr	26145	Glu Lys Ala Val Thr	26150	Ser Pro Pro Arg Val
26155	Lys Ser Pro Glu Pro	26160	Arg Val Lys Ser Pro	26165	Glu Ala Val Lys Ser
26170	Pro Lys Arg Val Lys	26175	Ser Pro Glu Pro Ser	26180	His Pro Lys Ala Val
26185	Ser Pro Thr Glu Thr	26190	Lys Pro Thr Pro Arg	26195	Glu Lys Val Gln His
26200	Leu Pro Val Ser Ala	26205	Pro Pro Lys Ile Thr	26210	Gln Phe Leu Lys Ala
26215	Glu Ala Ser Lys Glu	26220	Ile Ala Lys Leu Thr	26225	Cys Val Val Glu Ser
26230	Ser Val Leu Arg Ala	26235	Lys Glu Val Thr Trp	26240	Tyr Lys Asp Gly Lys
26245	Lys Leu Lys Glu Asn	26250	Gly His Phe Gln Phe	26255	His Tyr Ser Ala Asp
26260	Gly Thr Tyr Glu Leu	26265	Lys Ile Asn Asn Leu	26270	Thr Glu Ser Asp Gln
26275	Gly Glu Tyr Val Cys	26280	Glu Ile Ser Gly Glu	26285	Gly Gly Thr Ser Lys
26290	Thr Asn Leu Gln Phe	26295	Met Gly Gln Ala Phe	26300	Lys Ser Ile His Glu
26305	Lys Val Ser Lys Ile	26310	Ser Glu Thr Lys Lys	26315	Ser Asp Gln Lys Thr
26320	Thr Glu Ser Thr Val	26325	Thr Arg Lys Thr Glu	26330	Pro Lys Ala Pro Glu
26335	Pro Ile Ser Ser Lys	26340	Pro Val Ile Val Thr	26345	Gly Leu Gln Asp Thr
26350	Thr Val Ser Ser Asp	26355	Ser Val Ala Lys Phe	26360	Ala Val Lys Ala Thr
26365		26370		26375	

Gly	Glu	Pro	Arg	Pro	Thr	Ala	Ile	Trp	Thr	Lys	Asp	Gly	Lys	Ala
26380					26385					26390				
Ile	Thr	Gln	Gly	Gly	Lys	Tyr	Lys	Leu	Ser	Glu	Asp	Lys	Gly	Gly
26395					26400					26405				
Phe	Phe	Leu	Glu	Ile	His	Lys	Thr	Asp	Thr	Ser	Asp	Ser	Gly	Leu
26410					26415					26420				
Tyr	Thr	Cys	Thr	Val	Lys	Asn	Ser	Ala	Gly	Ser	Val	Ser	Ser	Ser
26425					26430					26435				
Cys	Lys	Leu	Thr	Ile	Lys	Ala	Ile	Lys	Asp	Thr	Glu	Ala	Gln	Lys
26440					26445					26450				
Val	Ser	Thr	Gln	Lys	Thr	Ser	Glu	Ile	Thr	Pro	Gln	Lys	Lys	Ala
26455					26460					26465				
Val	Val	Gln	Glu	Glu	Ile	Ser	Gln	Lys	Ala	Leu	Arg	Ser	Glu	Glu
26470					26475					26480				
Ile	Lys	Met	Ser	Glu	Ala	Lys	Ser	Gln	Glu	Lys	Leu	Ala	Leu	Lys
26485					26490					26495				
Glu	Glu	Ala	Ser	Lys	Val	Leu	Ile	Ser	Glu	Glu	Val	Lys	Lys	Ser
26500					26505					26510				
Ala	Ala	Thr	Ser	Leu	Glu	Lys	Ser	Ile	Val	His	Glu	Glu	Ile	Thr
26515					26520					26525				
Lys	Thr	Ser	Gln	Ala	Ser	Glu	Glu	Val	Arg	Thr	His	Ala	Glu	Ile
26530					26535					26540				
Lys	Ala	Phe	Ser	Thr	Gln	Met	Ser	Ile	Asn	Glu	Gly	Gln	Arg	Leu
26545					26550					26555				
Val	Leu	Lys	Ala	Asn	Ile	Ala	Gly	Ala	Thr	Asp	Val	Lys	Trp	Val
26560					26565					26570				
Leu	Asn	Gly	Val	Glu	Leu	Thr	Asn	Ser	Glu	Glu	Tyr	Arg	Tyr	Gly
26575					26580					26585				
Val	Ser	Gly	Ser	Asp	Gln	Thr	Leu	Thr	Ile	Lys	Gln	Ala	Ser	His
26590					26595					26600				
Arg	Asp	Glu	Gly	Ile	Leu	Thr	Cys	Ile	Ser	Lys	Thr	Lys	Glu	Gly
26605					26610					26615				
Ile	Val	Lys	Cys	Gln	Tyr	Asp	Leu	Thr	Leu	Ser	Lys	Glu	Leu	Ser
26620					26625					26630				
Asp	Ala	Pro	Ala	Phe	Ile	Ser	Gln	Pro	Arg	Ser	Gln	Asn	Ile	Asn
26635					26640					26645				
Glu	Gly	Gln	Asn	Val	Leu	Phe	Thr	Cys	Glu	Ile	Ser	Gly	Glu	Pro
26650					26655					26660				
Ser	Pro	Glu	Ile	Glu	Trp	Phe	Lys	Asn	Asn	Leu	Pro	Ile	Ser	Ile
26665					26670					26675				
Ser	Ser	Asn	Val	Ser	Ile	Ser	Arg	Ser	Arg	Asn	Val	Tyr	Ser	Leu
26680					26685					26690				
Glu	Ile	Arg	Asn	Ala	Ser	Val	Ser	Asp	Ser	Gly	Lys	Tyr	Thr	Ile
26695					26700					26705				
Lys	Ala	Lys	Asn	Phe	Arg	Gly	Gln	Cys	Ser	Ala	Thr	Ala	Ser	Leu
26710					26715					26720				
Met	Val	Leu	Pro	Leu	Val	Glu	Glu	Pro	Ser	Arg	Glu	Val	Val	Leu
26725					26730					26735				
Arg	Thr	Ser	Gly	Asp	Thr	Ser	Leu	Gln	Gly	Ser	Phe	Ser	Ser	Gln
26740					26745					26750				
Ser	Val	Gln	Met	Ser	Ala	Ser	Lys	Gln	Glu	Ala	Ser	Phe	Ser	Ser
26755					26760					26765				
Phe	Ser	Ser	Ser	Ser	Ala	Ser	Ser	Met	Thr	Glu	Met	Lys	Phe	Ala
26770					26775					26780				
Ser	Met	Ser	Ala	Gln	Ser	Met	Ser	Ser	Met	Gln	Glu	Ser	Phe	Val
26785					26790					26795				
Glu	Met	Ser	Ser	Ser	Ser	Phe	Met	Gly	Ile	Ser	Asn	Met	Thr	Gln
26800					26805					26810				
Leu	Glu	Ser	Ser	Thr	Ser	Lys	Met	Leu	Lys	Ala	Gly	Ile	Arg	Gly

26815	26820	26825
Ile Pro Pro Lys Ile	Glu Ala Leu Pro Ser	Asp Ile Ser Ile Asp
26830	26835	26840
Glu Gly Lys Val Leu	Thr Val Ala Cys Ala	Phe Thr Gly Glu Pro
26845	26850	26855
Thr Pro Glu Val Thr	Trp Ser Cys Gly Gly	Arg Lys Ile His Ser
26860	26865	26870
Gln Glu Gln Gly Arg	Phe His Ile Glu Asn	Thr Asp Asp Leu Thr
26875	26880	26885
Thr Leu Ile Ile Met	Asp Val Gln Lys Gln	Asp Gly Gly Leu Tyr
26890	26895	26900
Thr Leu Ser Leu Gly	Asn Glu Phe Gly Ser	Asp Ser Ala Thr Val
26905	26910	26915
Asn Ile His Ile Arg	Ser Ile	
26920	26925	

<210> 3
 <211> 21
 <212> DNA
 <213> Danio rerio

<400> 3
 agggacactc agagaccata g 21

<210> 4
 <211> 40
 <212> DNA
 <213> Danio rerio

<400> 4
 taatacgact cactataggg gtctgaggat actcgcccttc 40

<210> 5
 <211> 27
 <212> DNA
 <213> Danio rerio

<400> 5
 tttgaaccac ttgaaggtca caccagg 27

<210> 6
 <211> 30
 <212> DNA
 <213> Danio rerio

<400> 6
 gctaagaatg actatggagt tgccacaagc 30

<210> 7
 <211> 27
 <212> DNA
 <213> Danio rerio

<400> 7
 tgaaccactt gaaggtcaca ccaggag 27

<210> 8

<211> 41
 <212> DNA
 <213> Danio rerio

 <400> 8
 taatacgact cactataggg agggacactc agagaccata g 41

 <210> 9
 <211> 40
 <212> DNA
 <213> Danio rerio

 <400> 9
 taatacgact cactataggg gtctgaggat actcgcttc 40

 <210> 10
 <211> 21
 <212> DNA
 <213> Danio rerio

 <400> 10
 agggacactc agagaccata g 21

 <210> 11
 <211> 22
 <212> DNA
 <213> Danio rerio

 <400> 11
 ggcaatgtta ctctctgttg ag 22